



SUPERIOR
WELL SERVICES
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.
Well Hill Ranch East 23-09
Field Purgatoire River
County Las Animas State Colorado

Location: API #: 05 071 09449 00

2178' FSL & 867' FEL

SEC 23 TWP 34S RGE 67W

Permanent Datum Ground Level Elevation 7734'
Log Measured From Ground Level
Drilling Measured From Ground Level

Other Services
DIL
Elevation
K.B. -----
D.F. -----
G.L. 7734'

Date	4-8-08		
Run Number	One		
Depth Driller	2305'		
Depth Logger	2293'		
Bottom Logged Interval	2269'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 488'		
Casing Logger	488'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	6:00 A.M.		
Time Logger on Bottom	8:30 A.M.		
Maximum Recorded Temperature	110 DEG F		
Equipment Number	T697		
Location	Trinidad		
Recorded By	J. Cappellucci		
Witnessed By	Mr. Butch Cummings		

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Neutron Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.

Well Directions:

Lorencito, 2.2 miles past Compressor station take right,
at next Y stay right up hill, At top of hill take hard left,
take third left, stay left all the way to location.



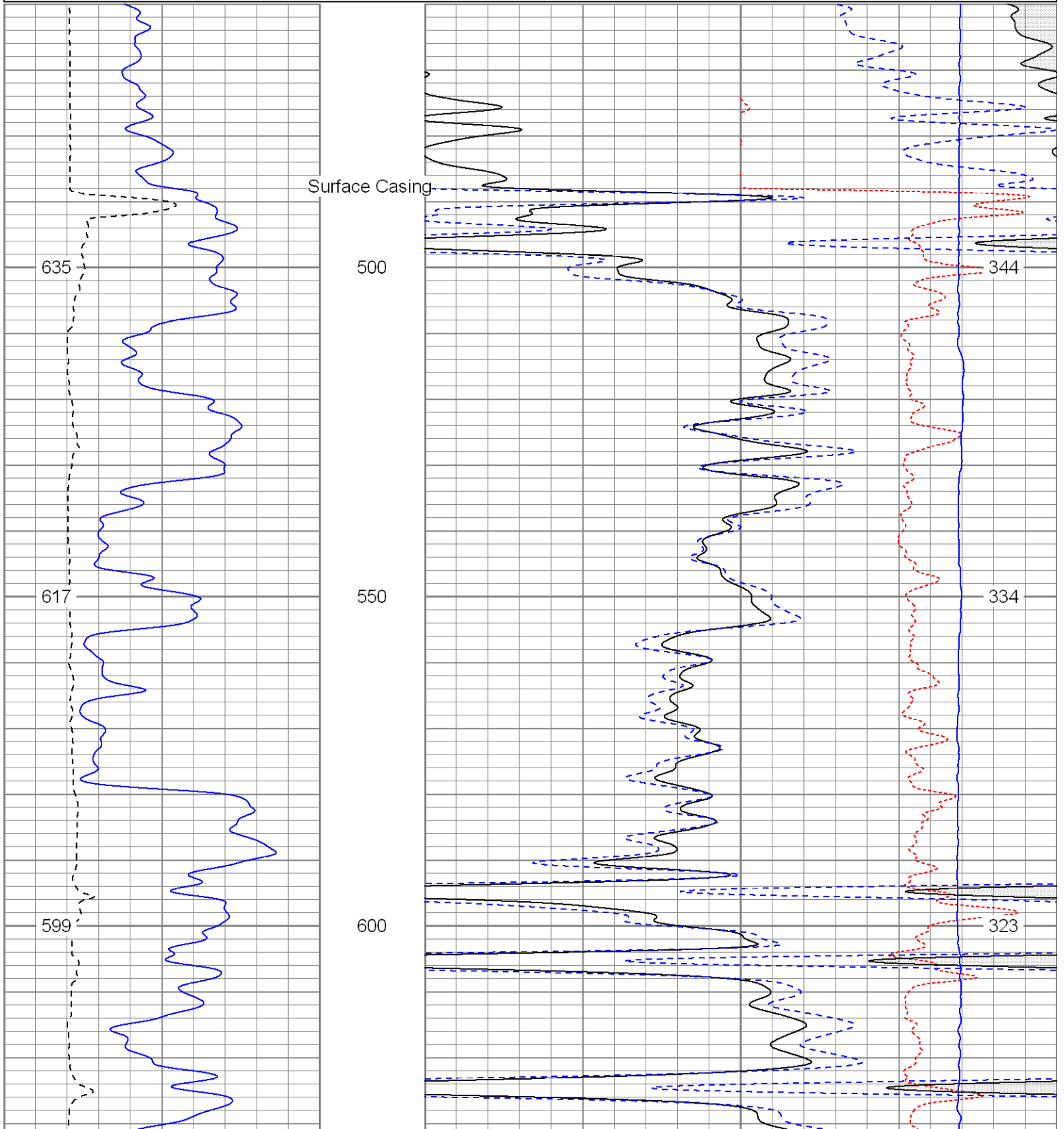
SUPERIOR
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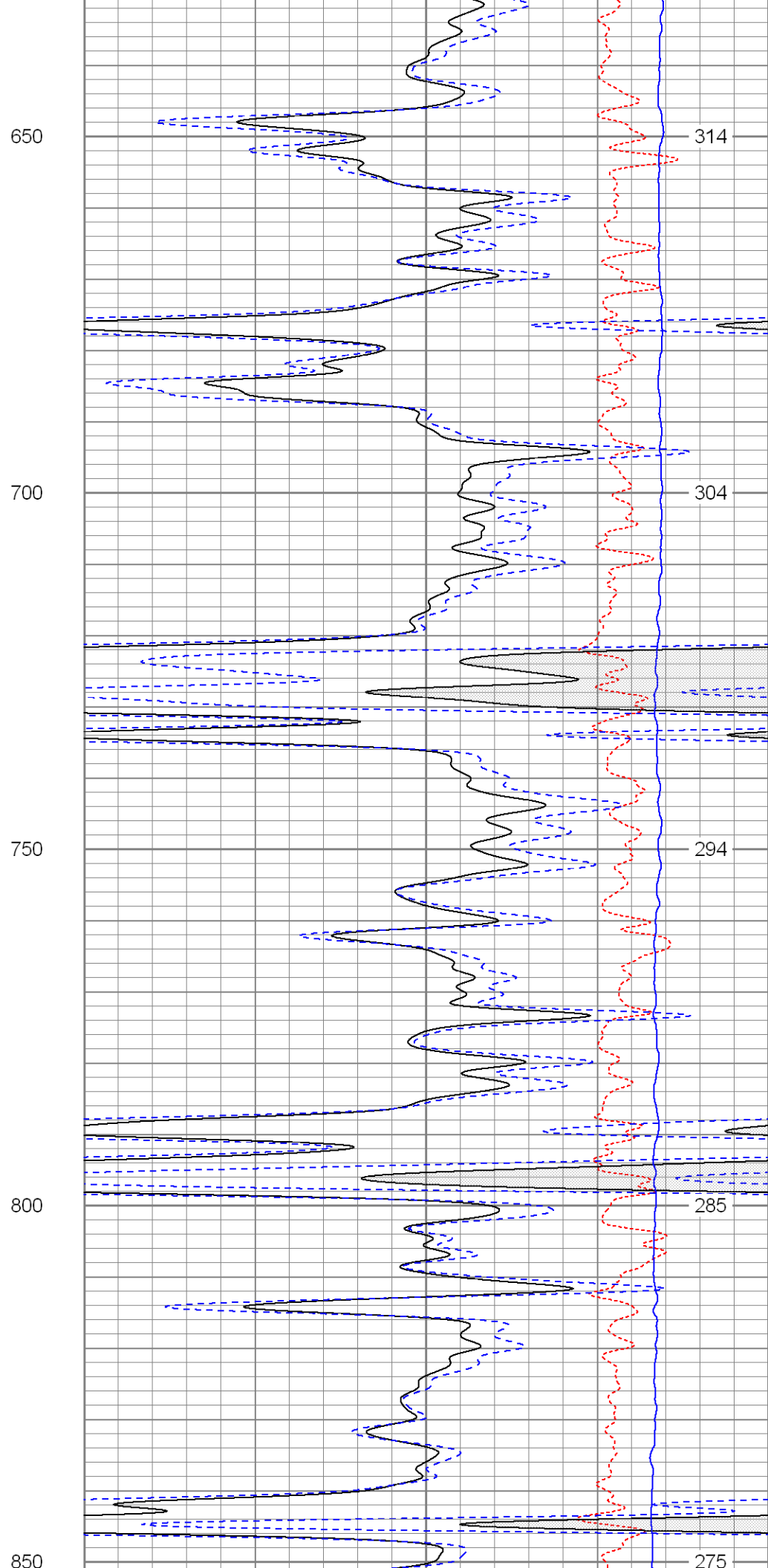
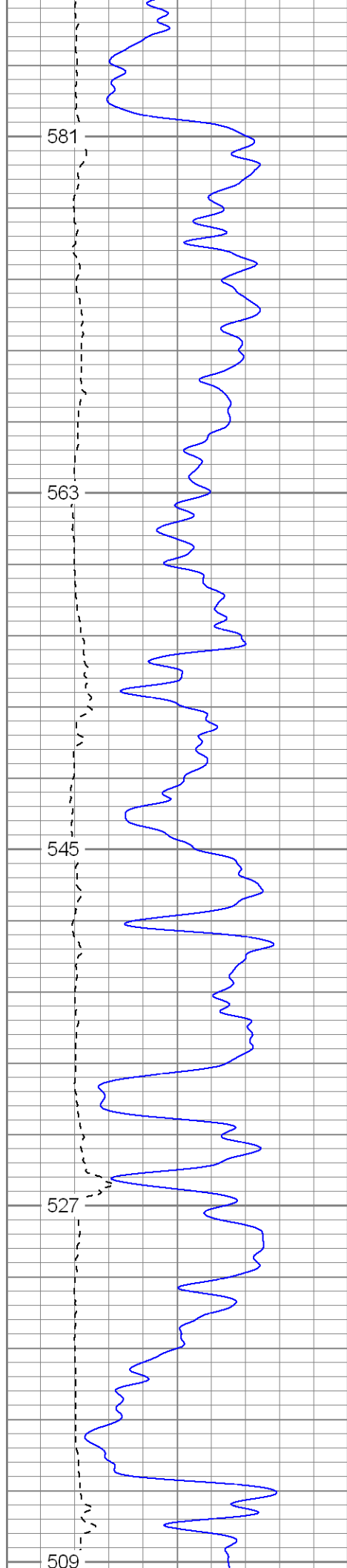
Main Pass

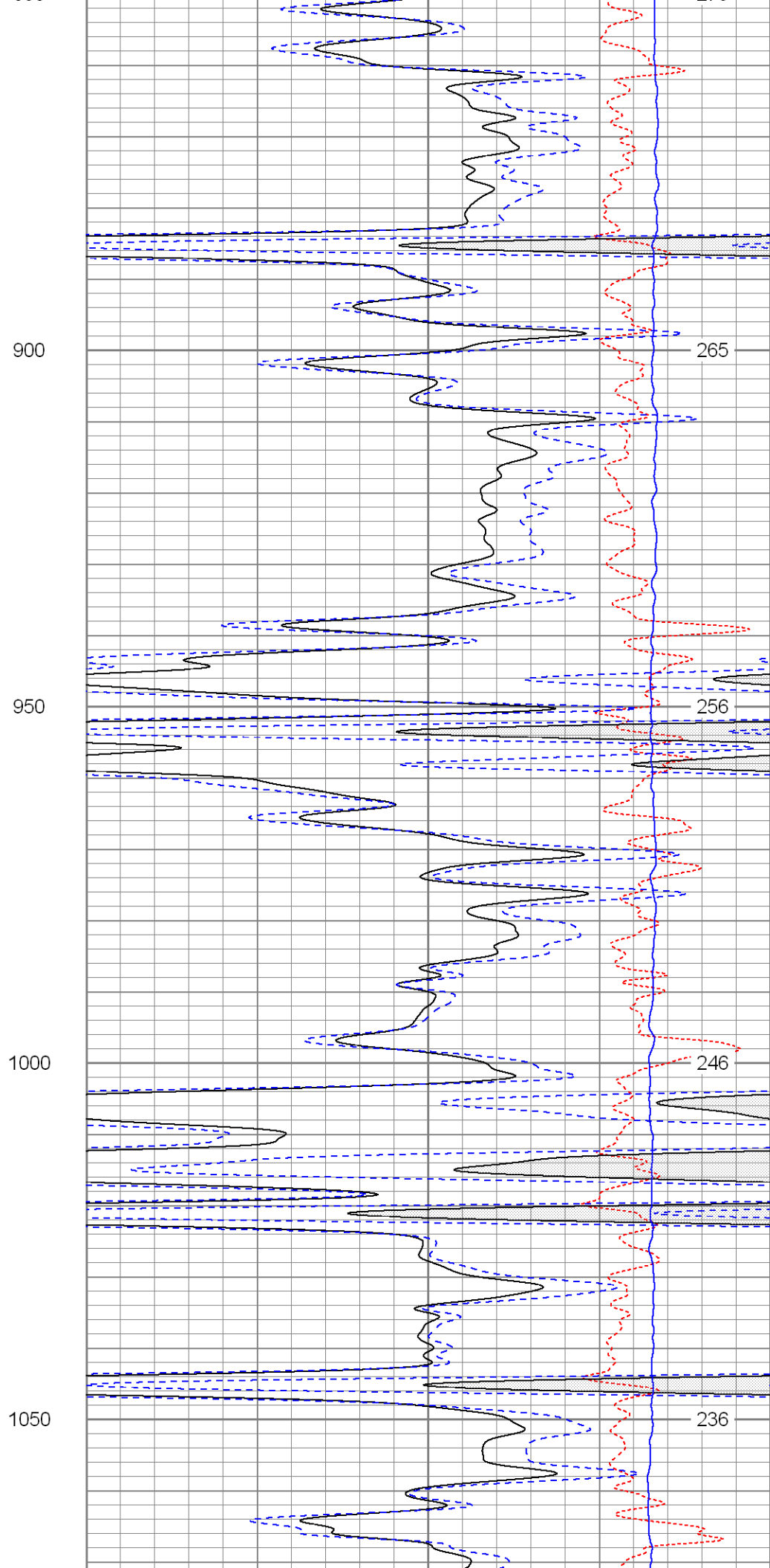
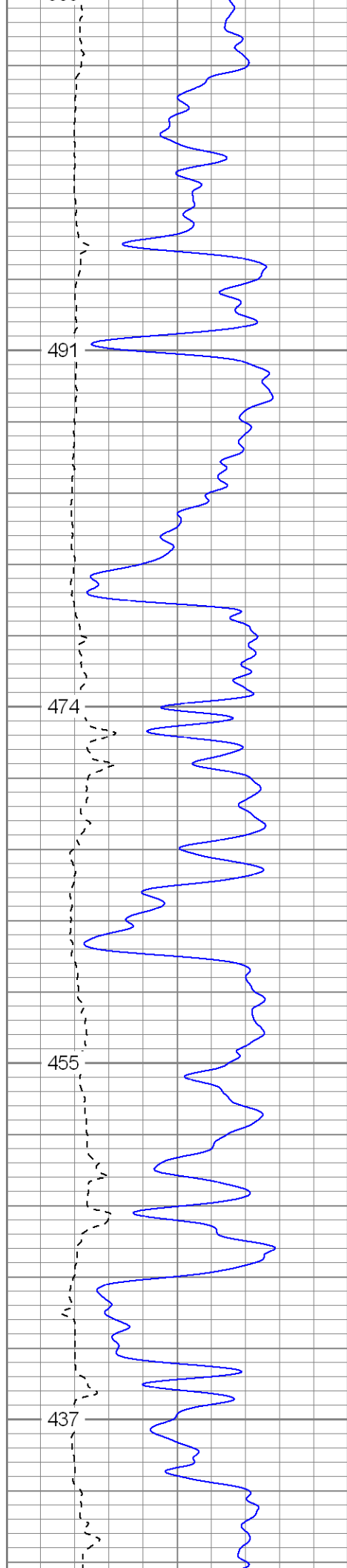
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Dataset Pathname: pass2.2
Presentation Format: cdl
Dataset Creation: Wed Apr 09 07:45:00 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

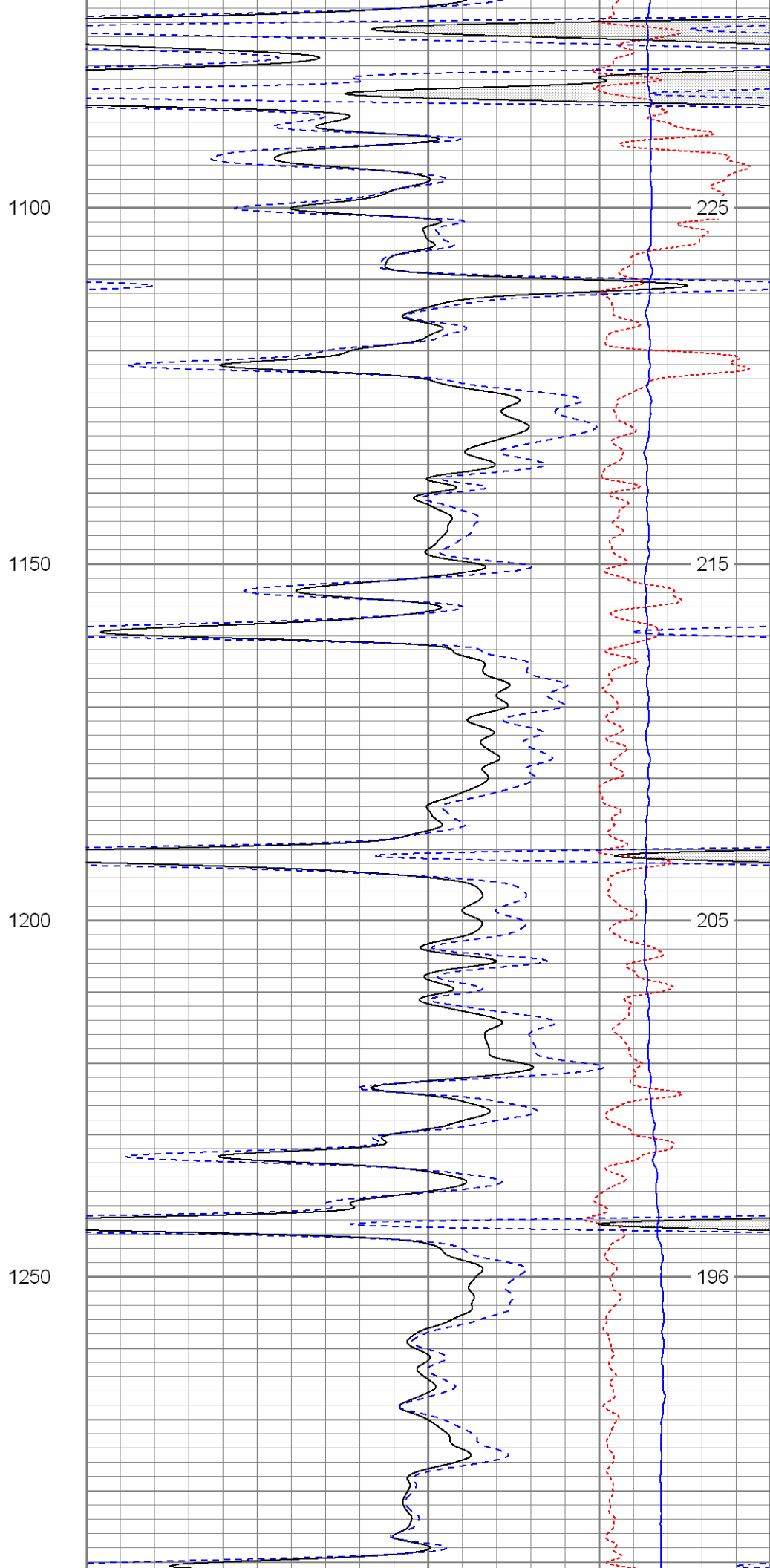
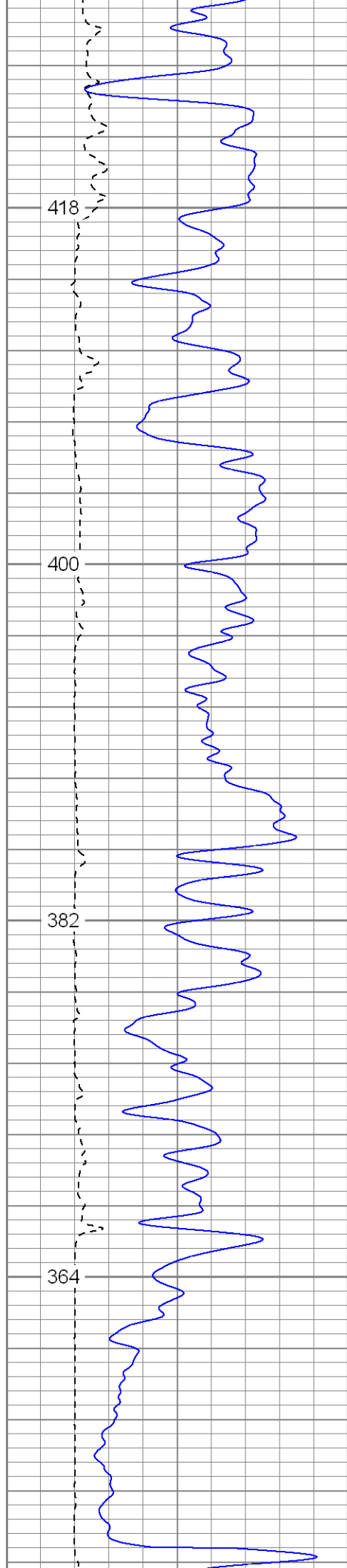
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6	DCAL (in)	16
TBHV (ft3)		

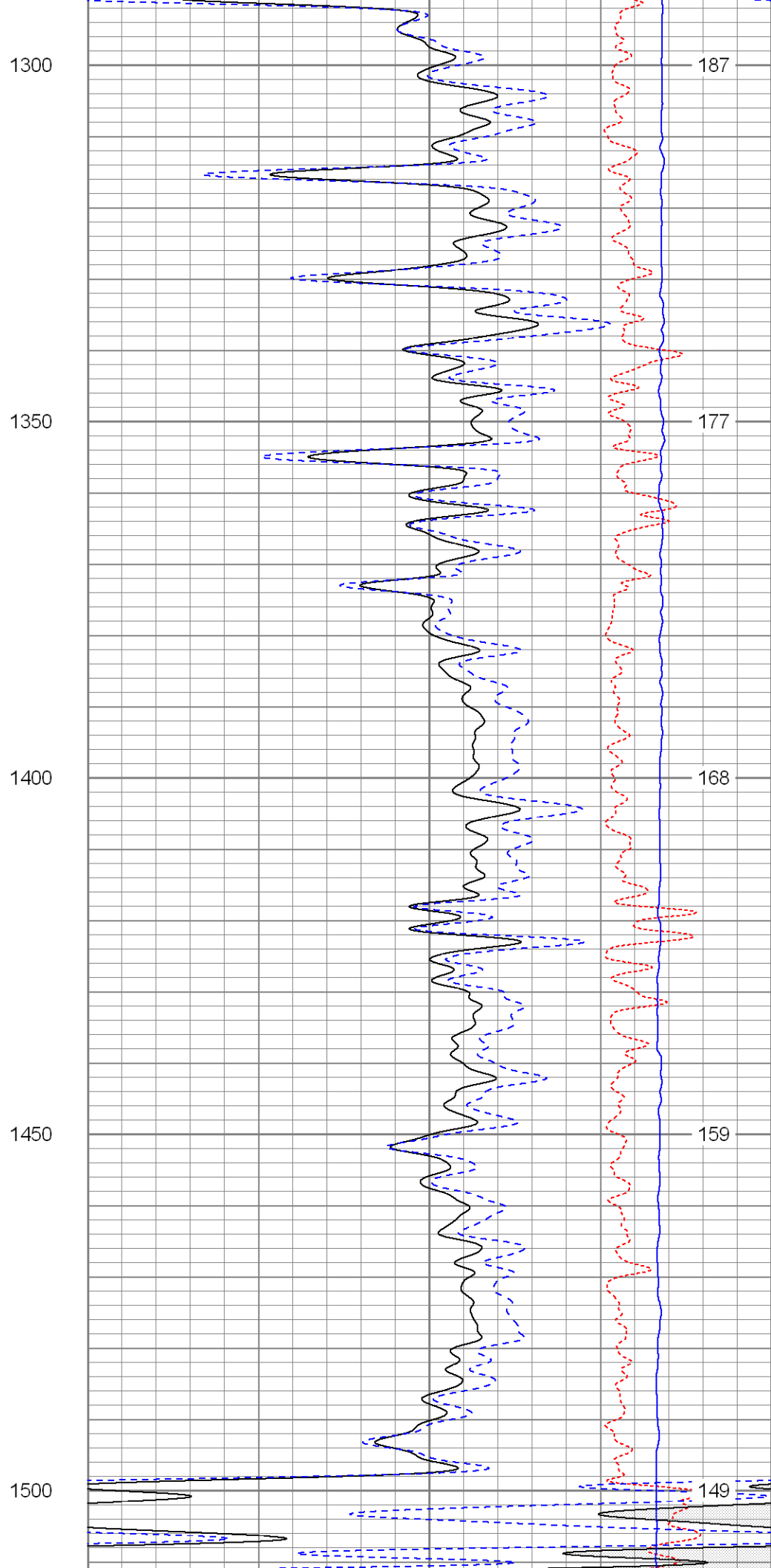
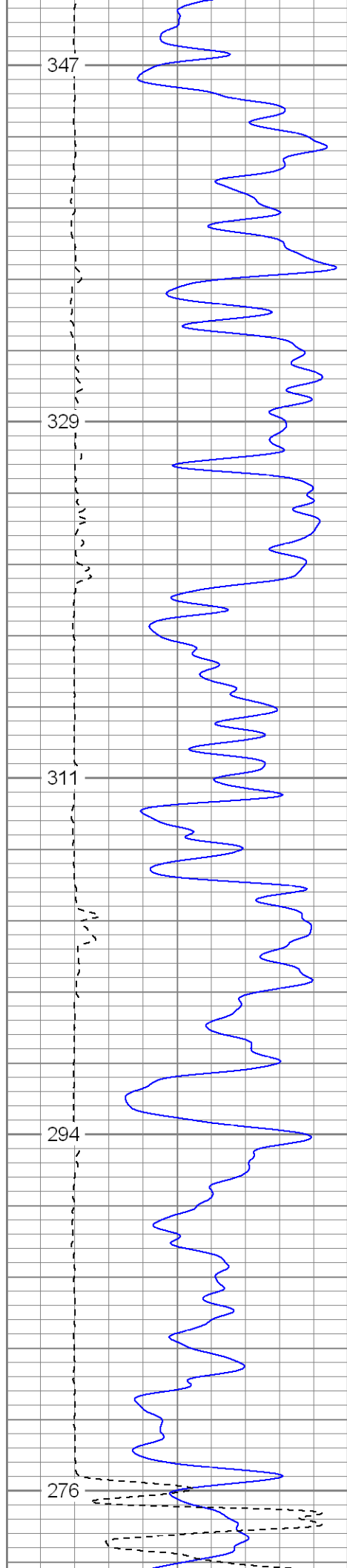
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
		ABHV (ft3)

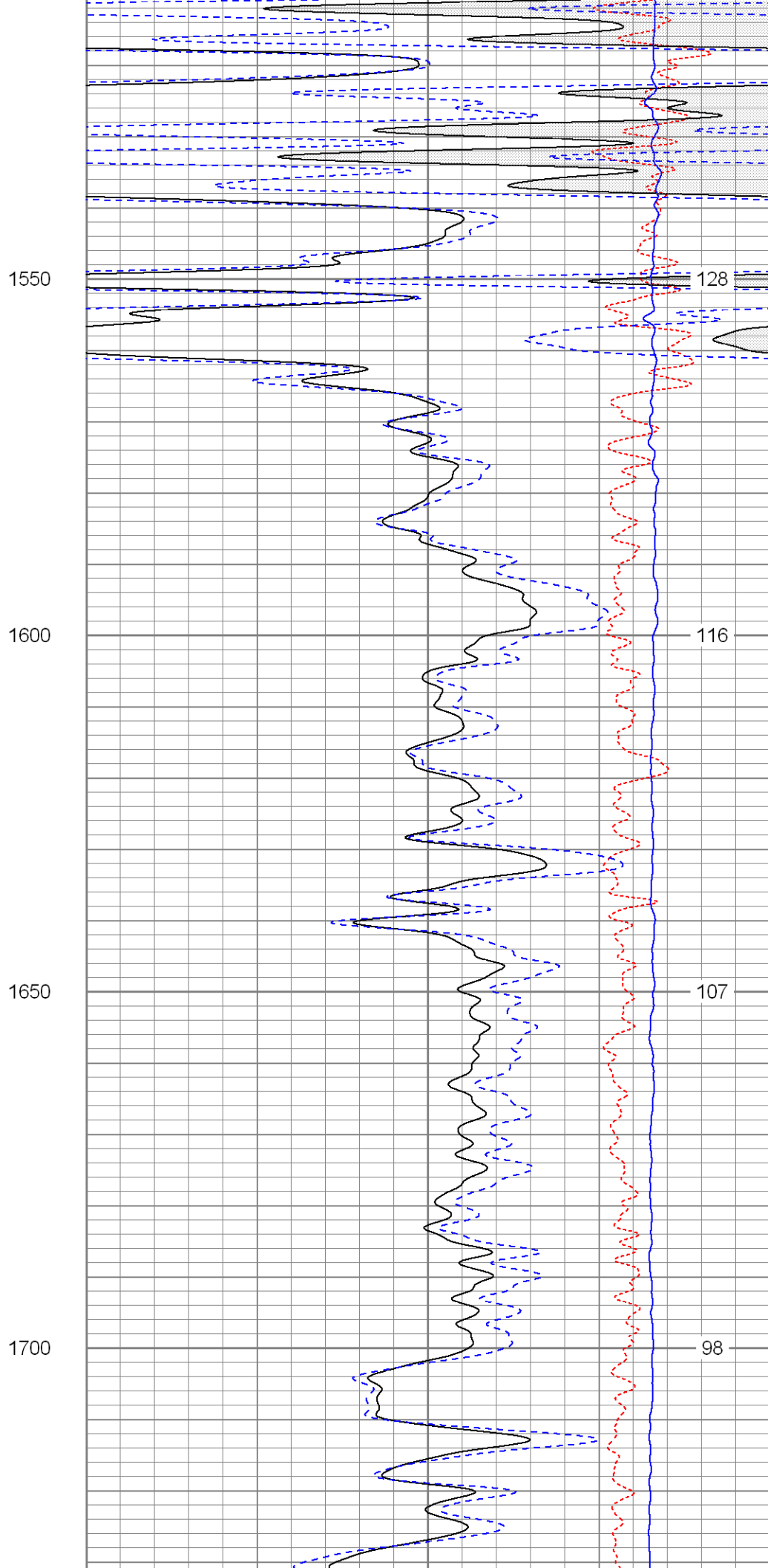
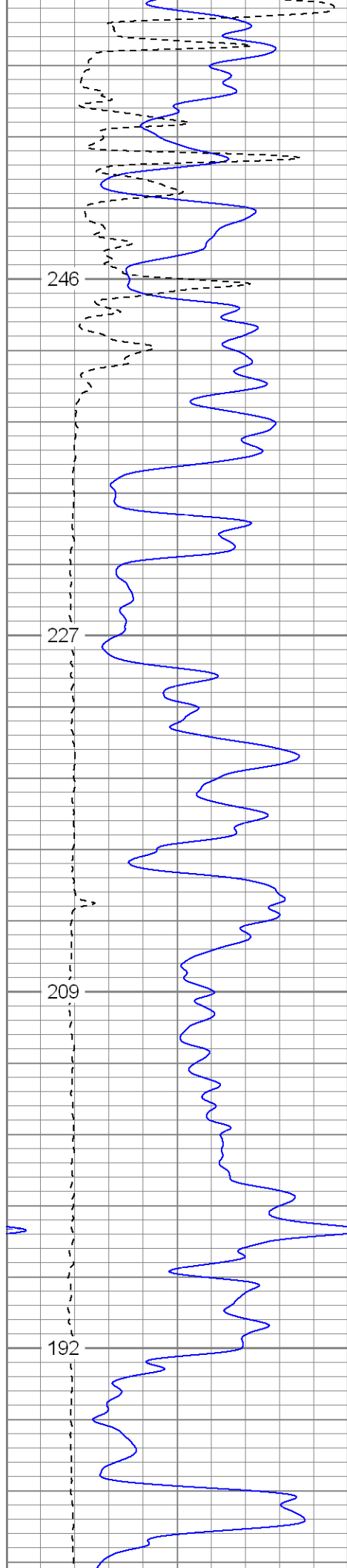


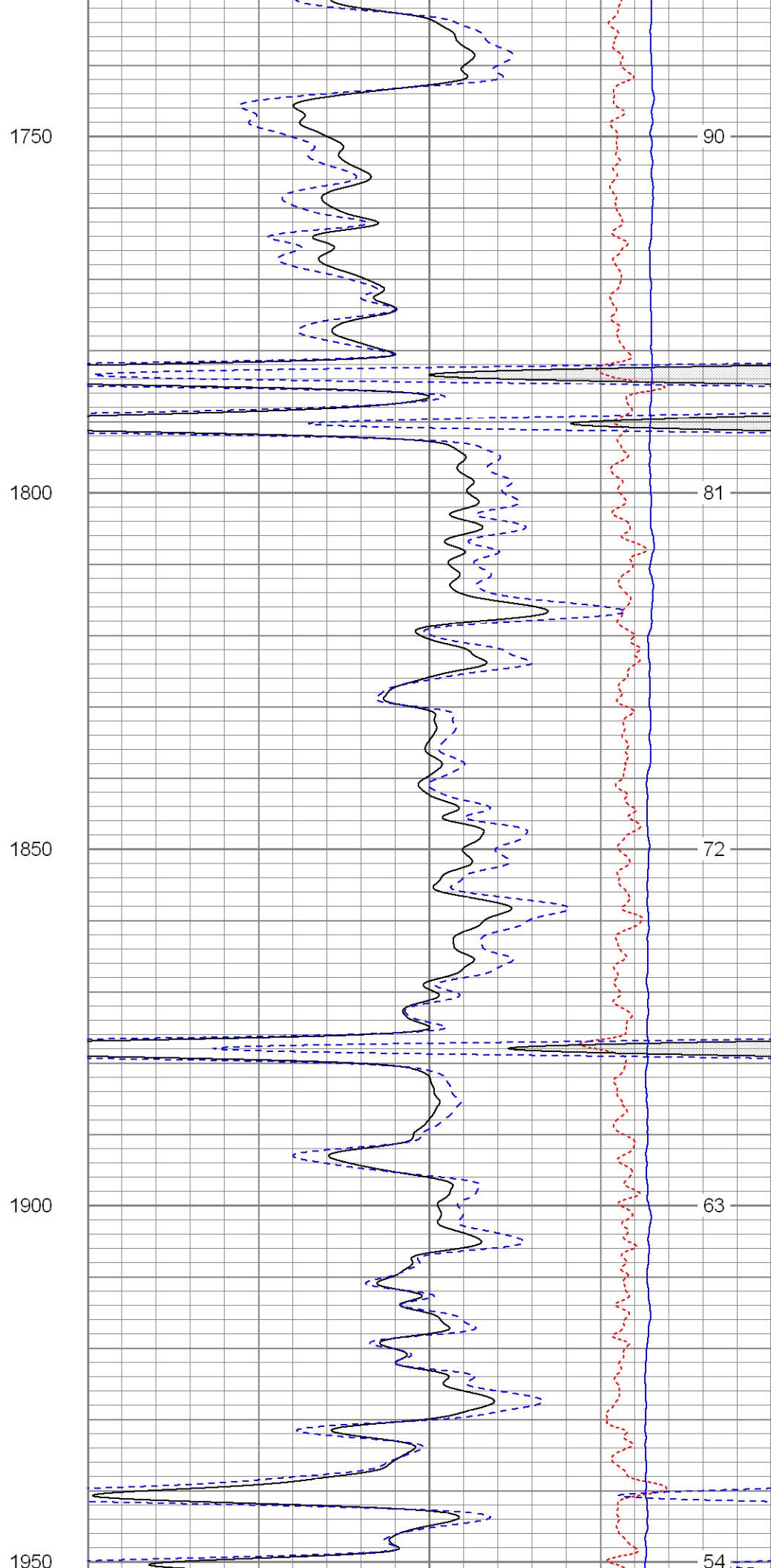
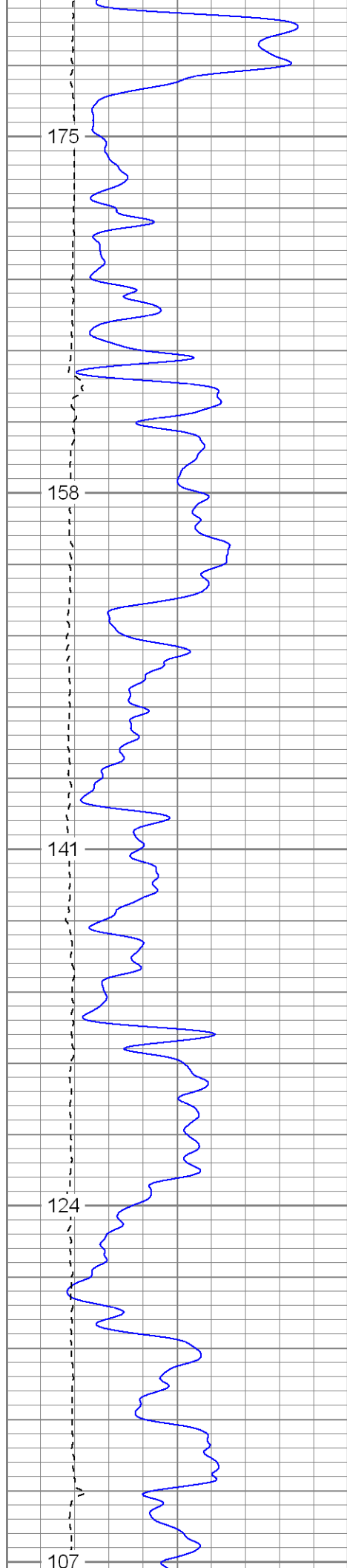


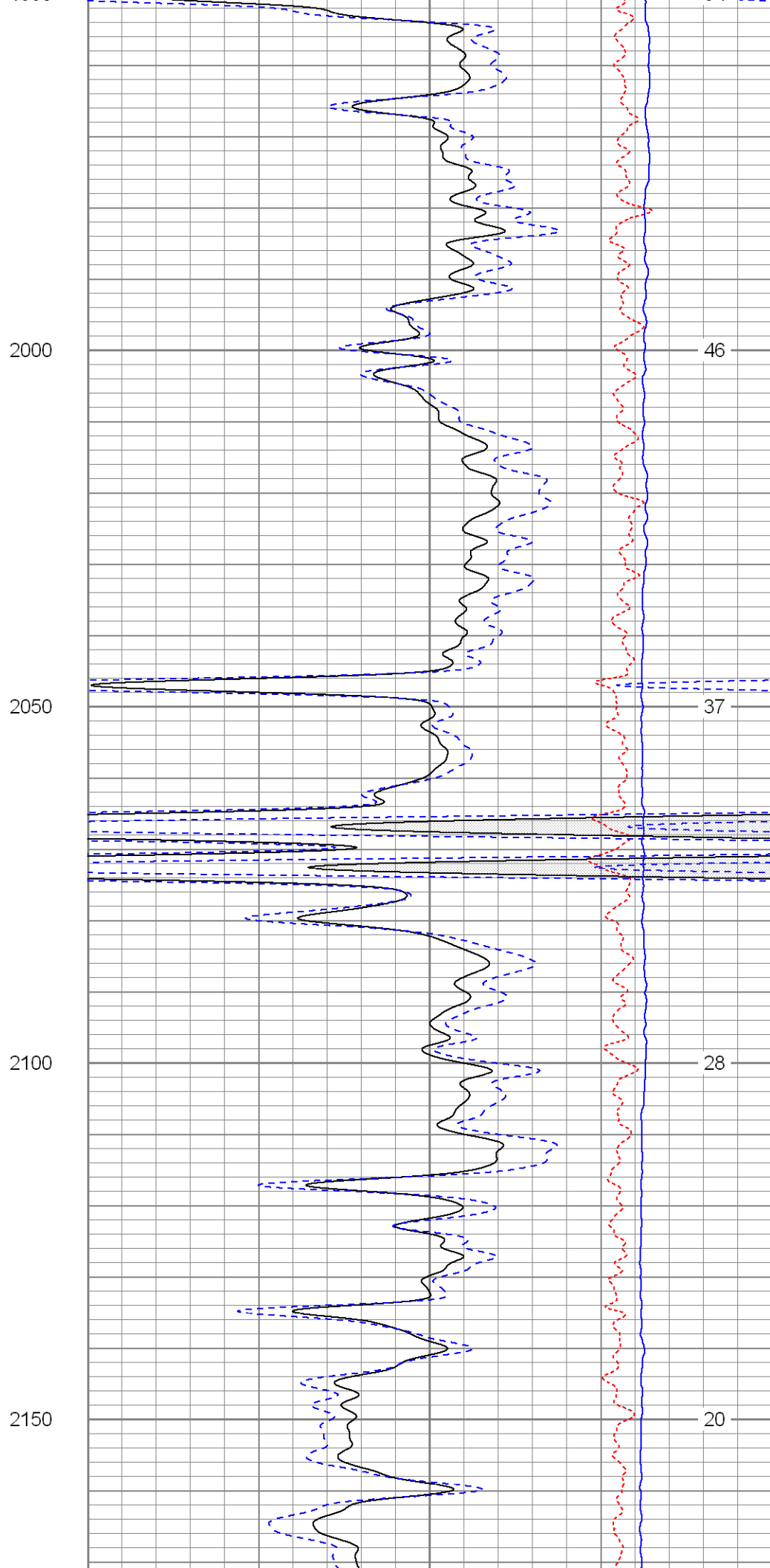
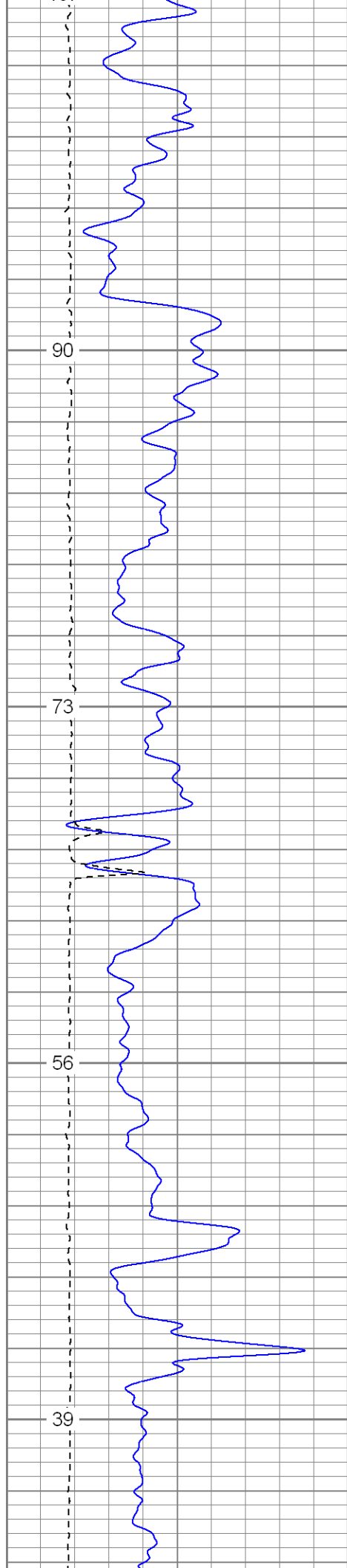


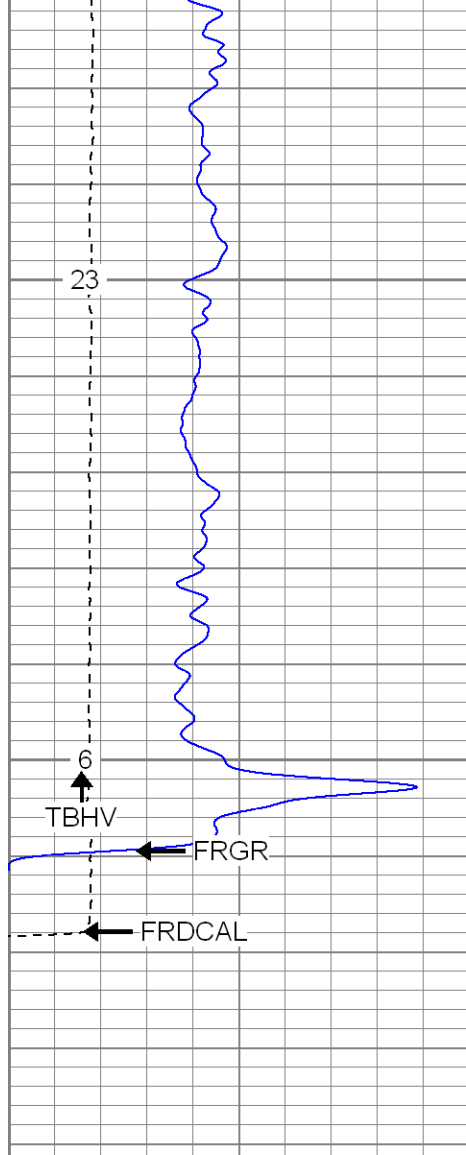




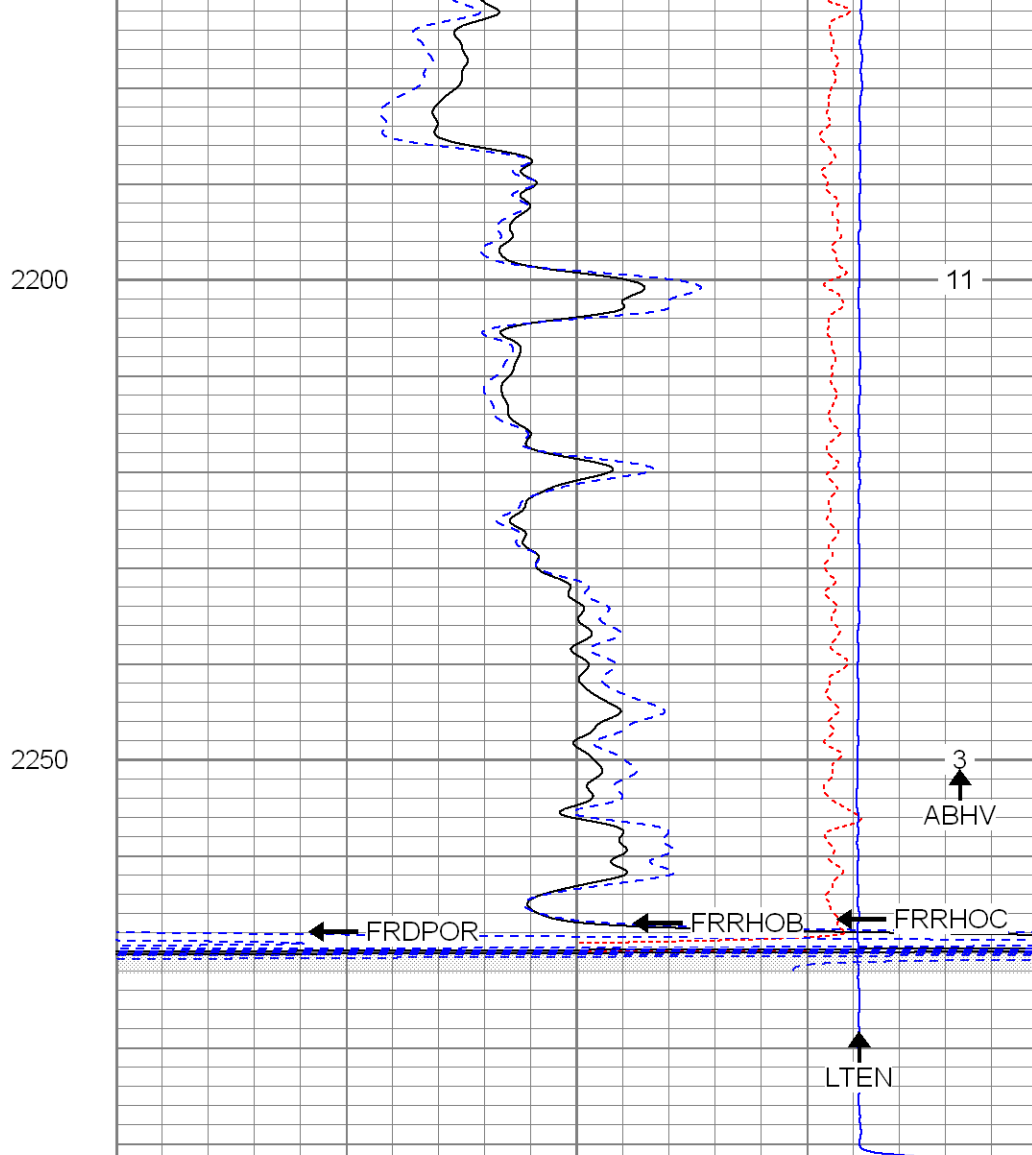








0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		



2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
ABHV (ft3)		



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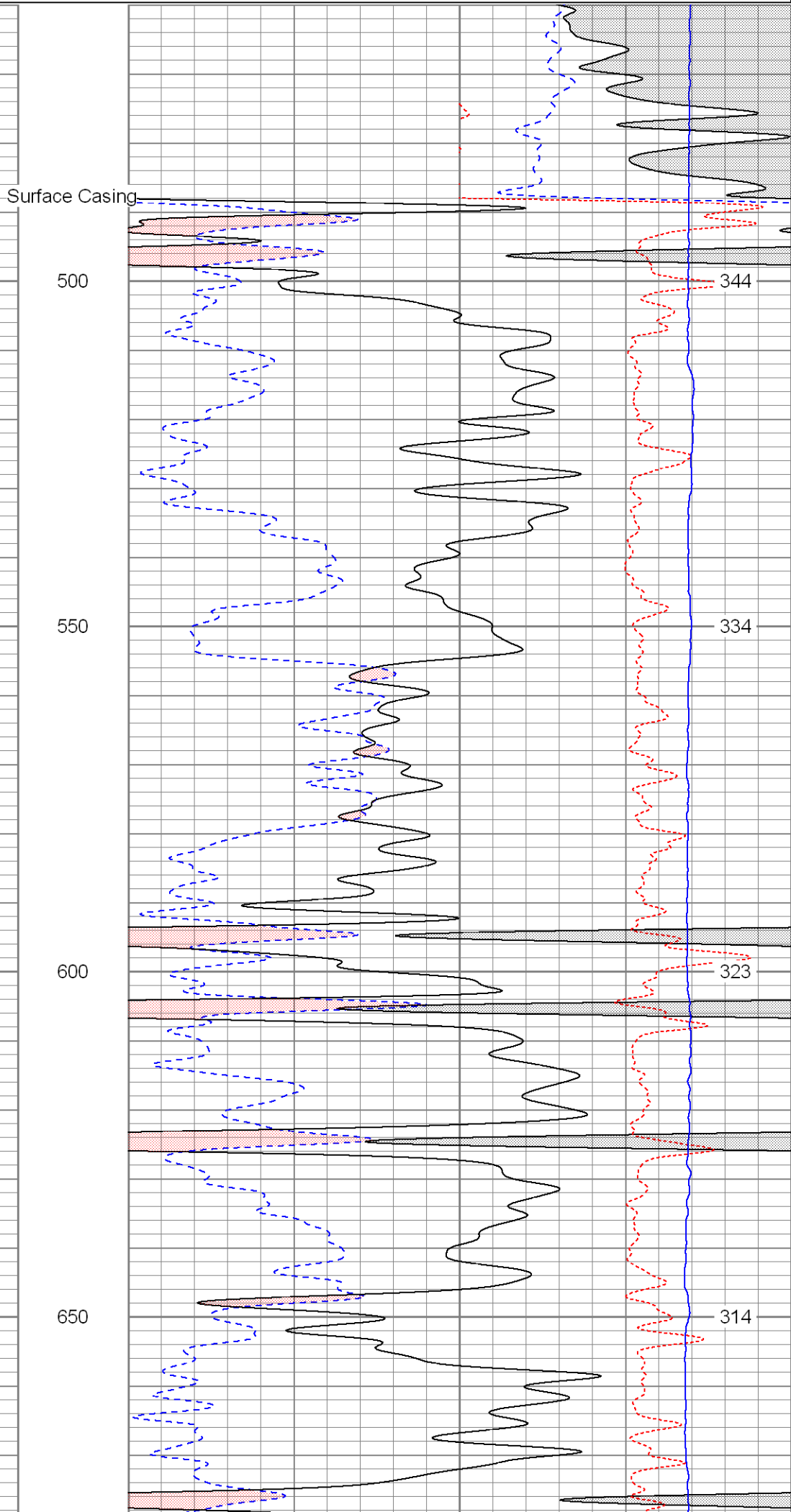
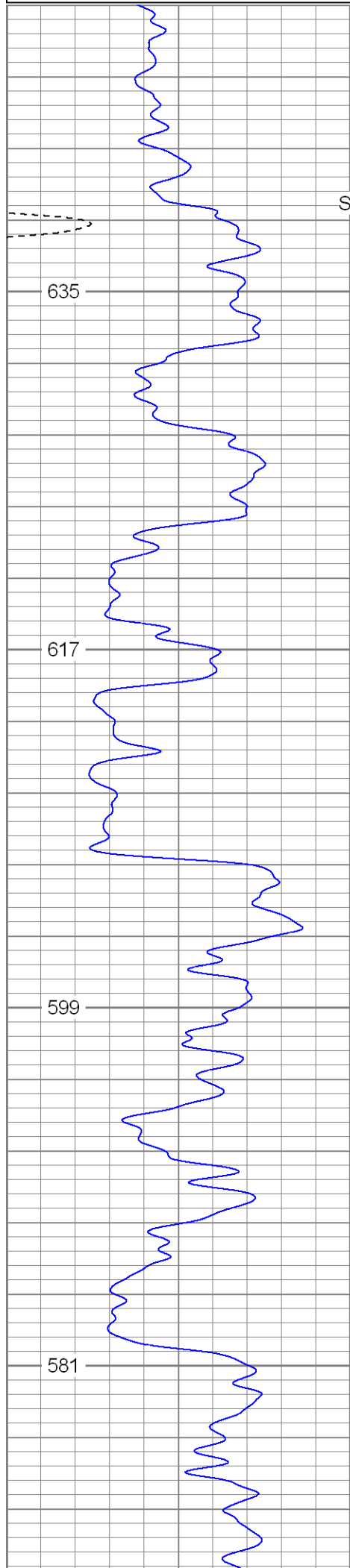
Black Lick, Pa.
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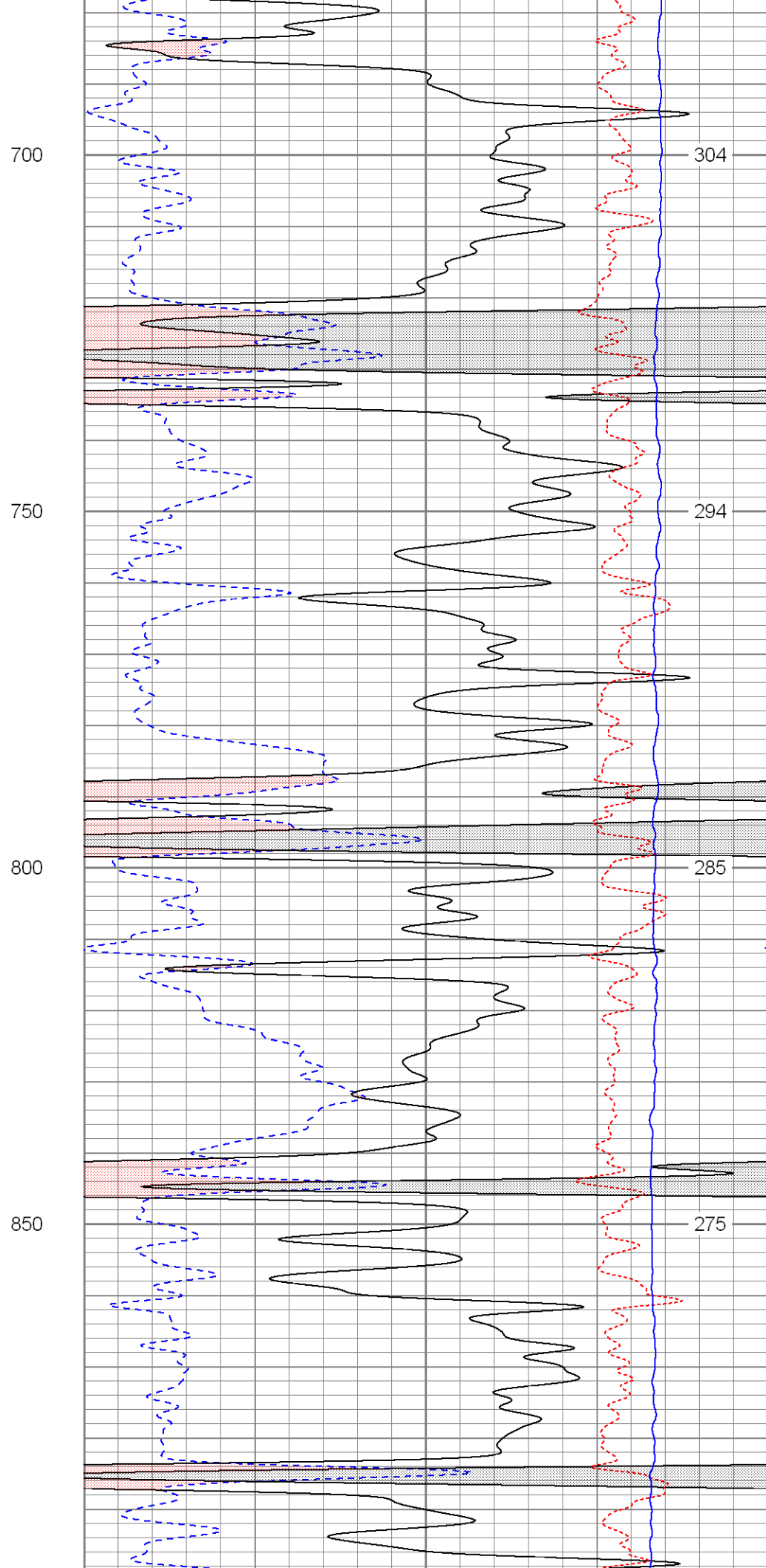
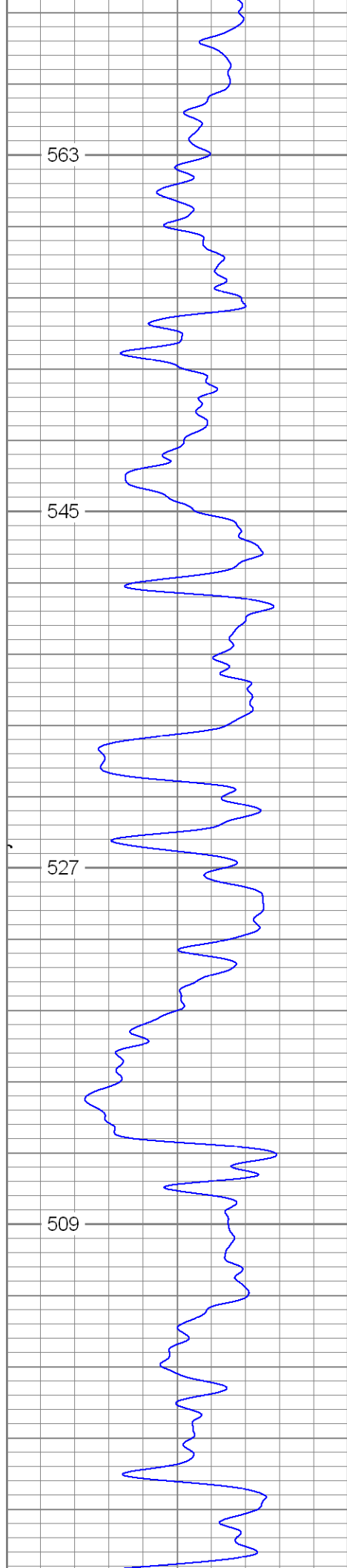
Main Pass

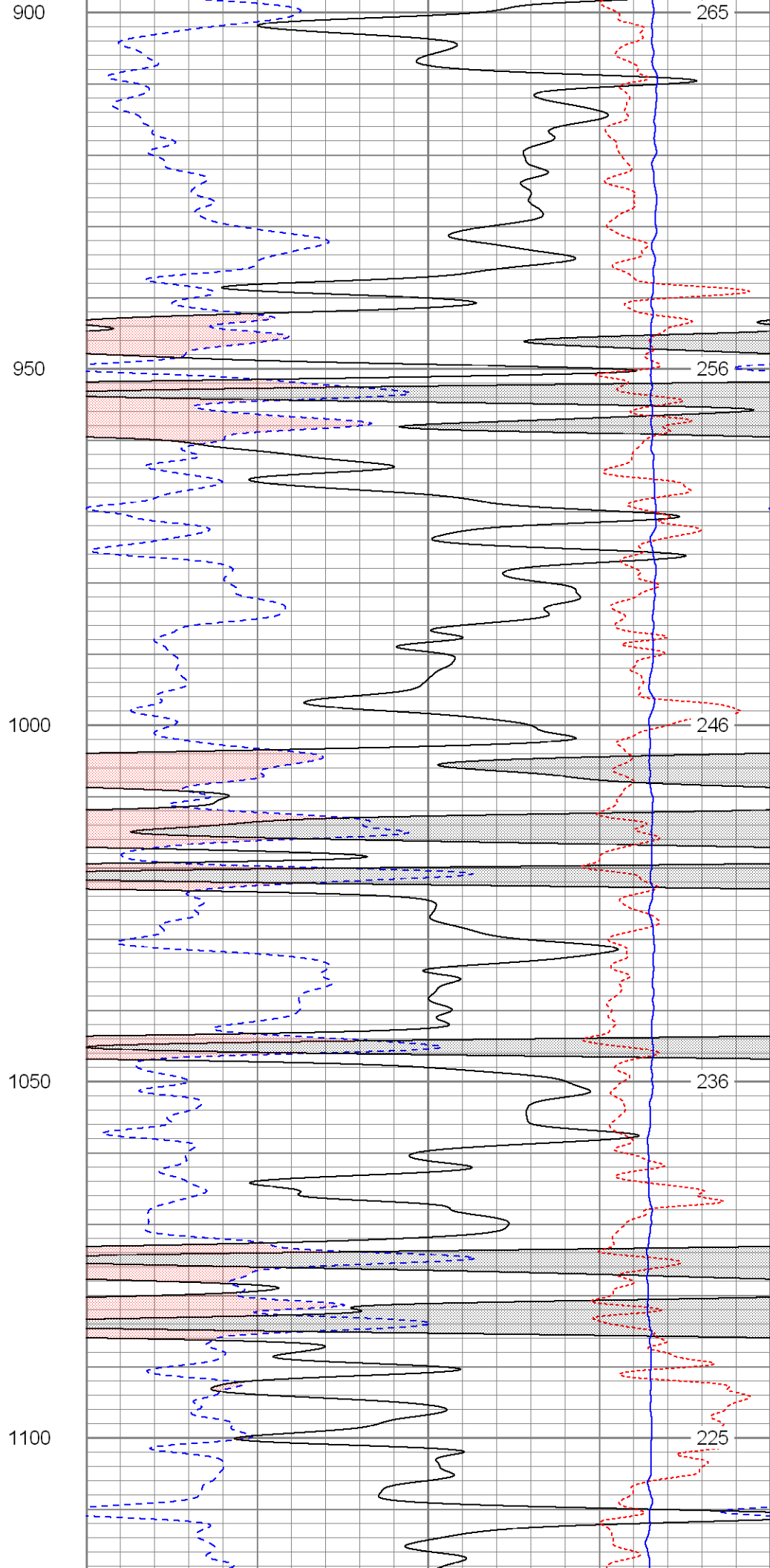
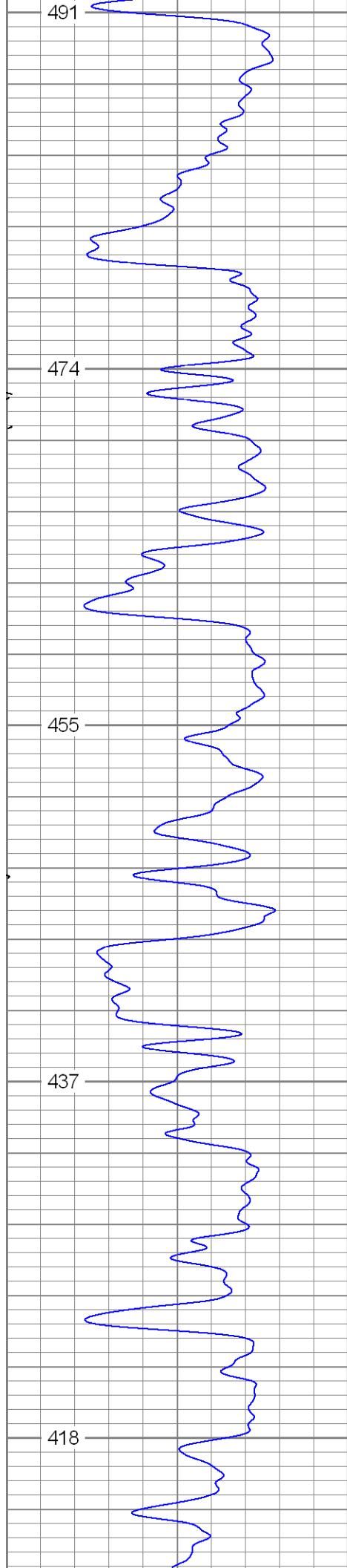
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Dataset Pathname: pass2.2
Presentation Format: cdnl
Dataset Creation: Wed Apr 09 07:45:00 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

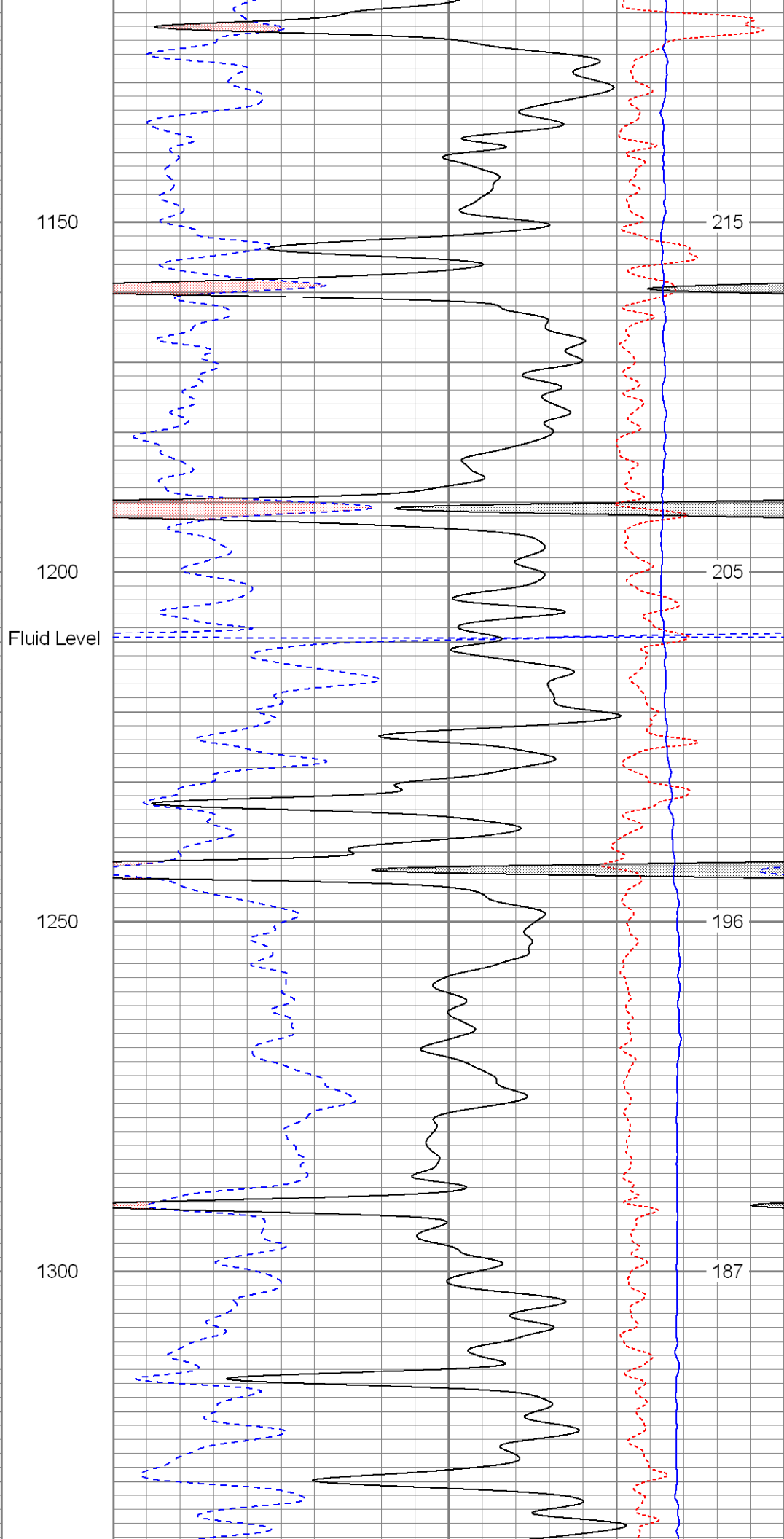
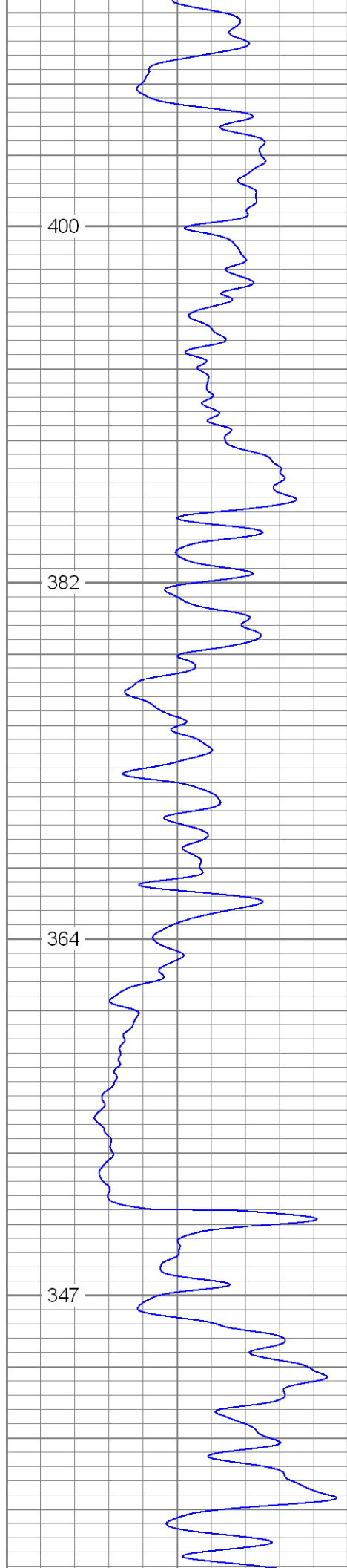
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9	DCAL (in)	19
TBHV (ft3)		

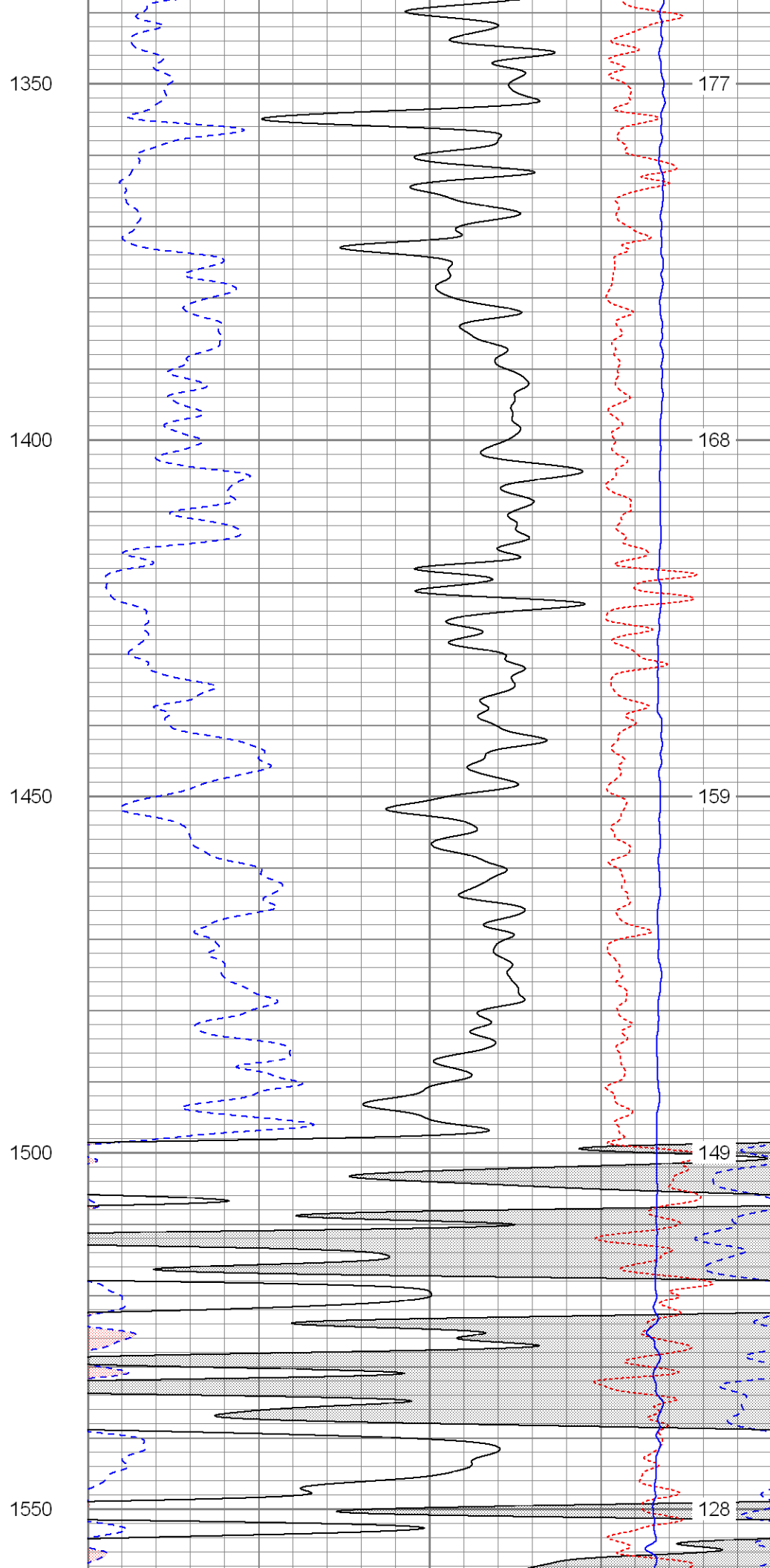
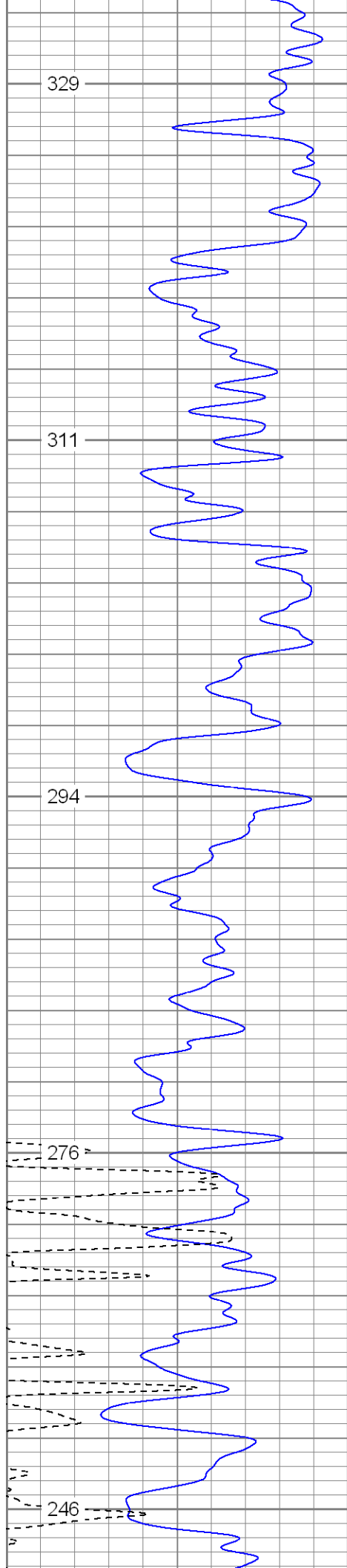
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
ABHV (ft3)		

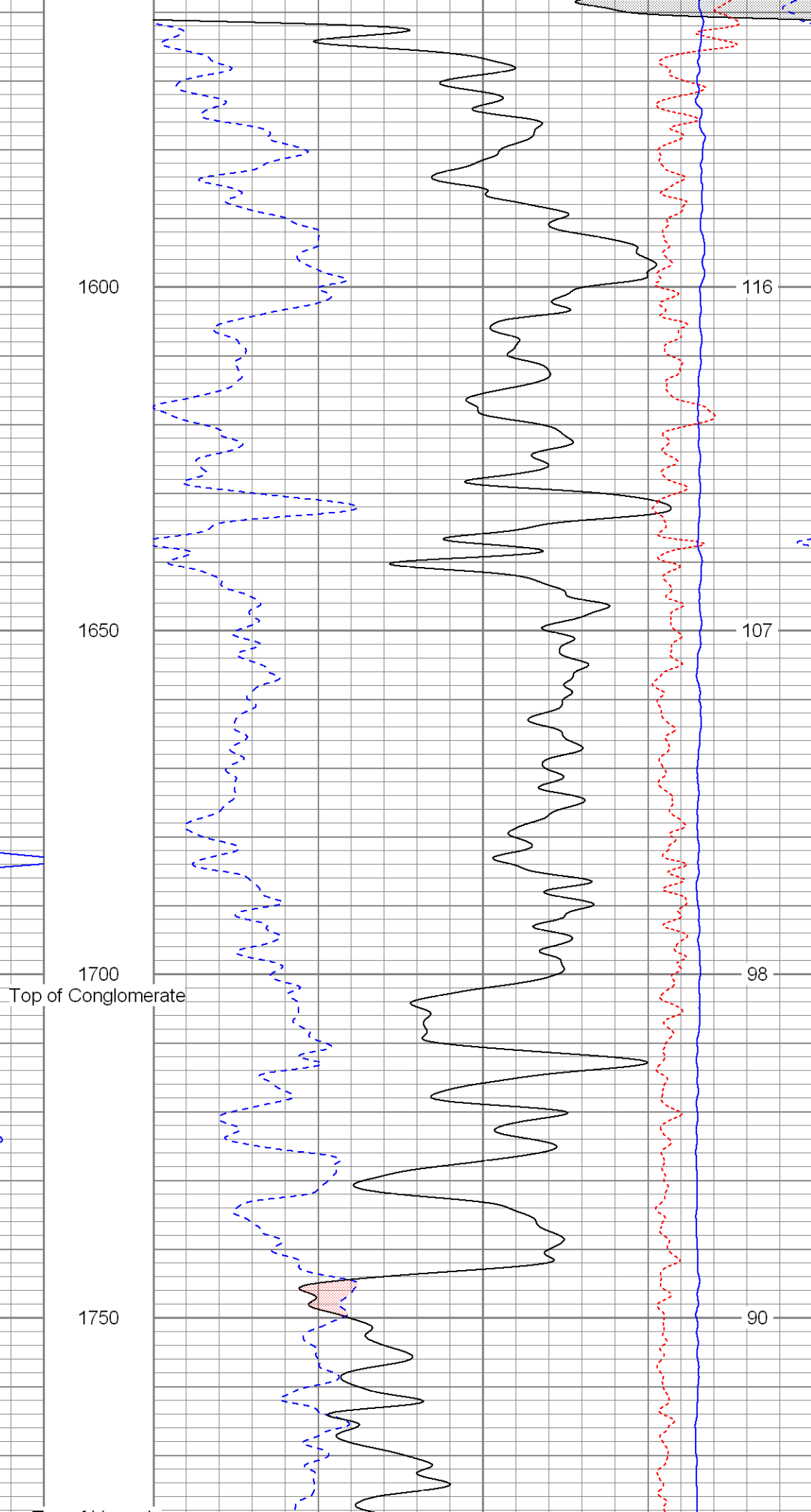
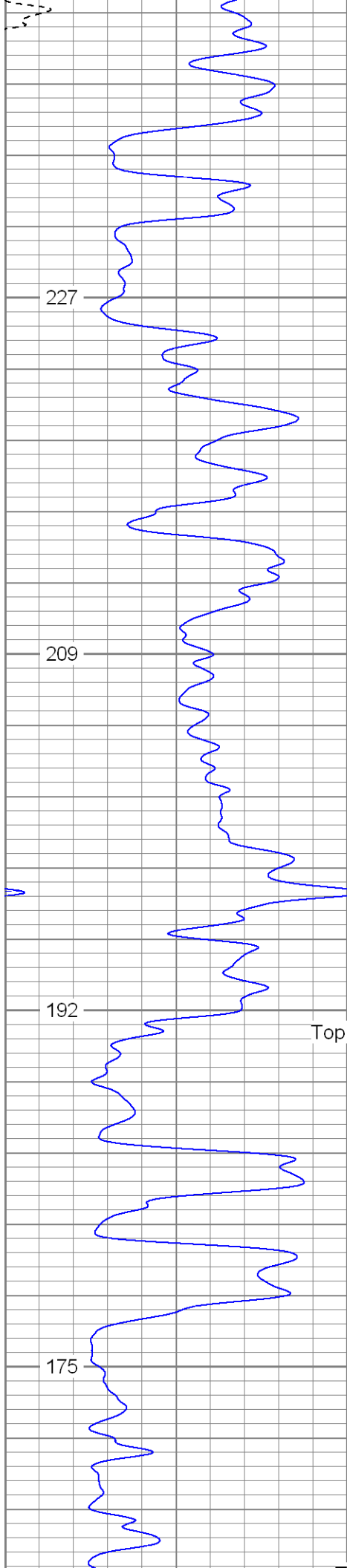




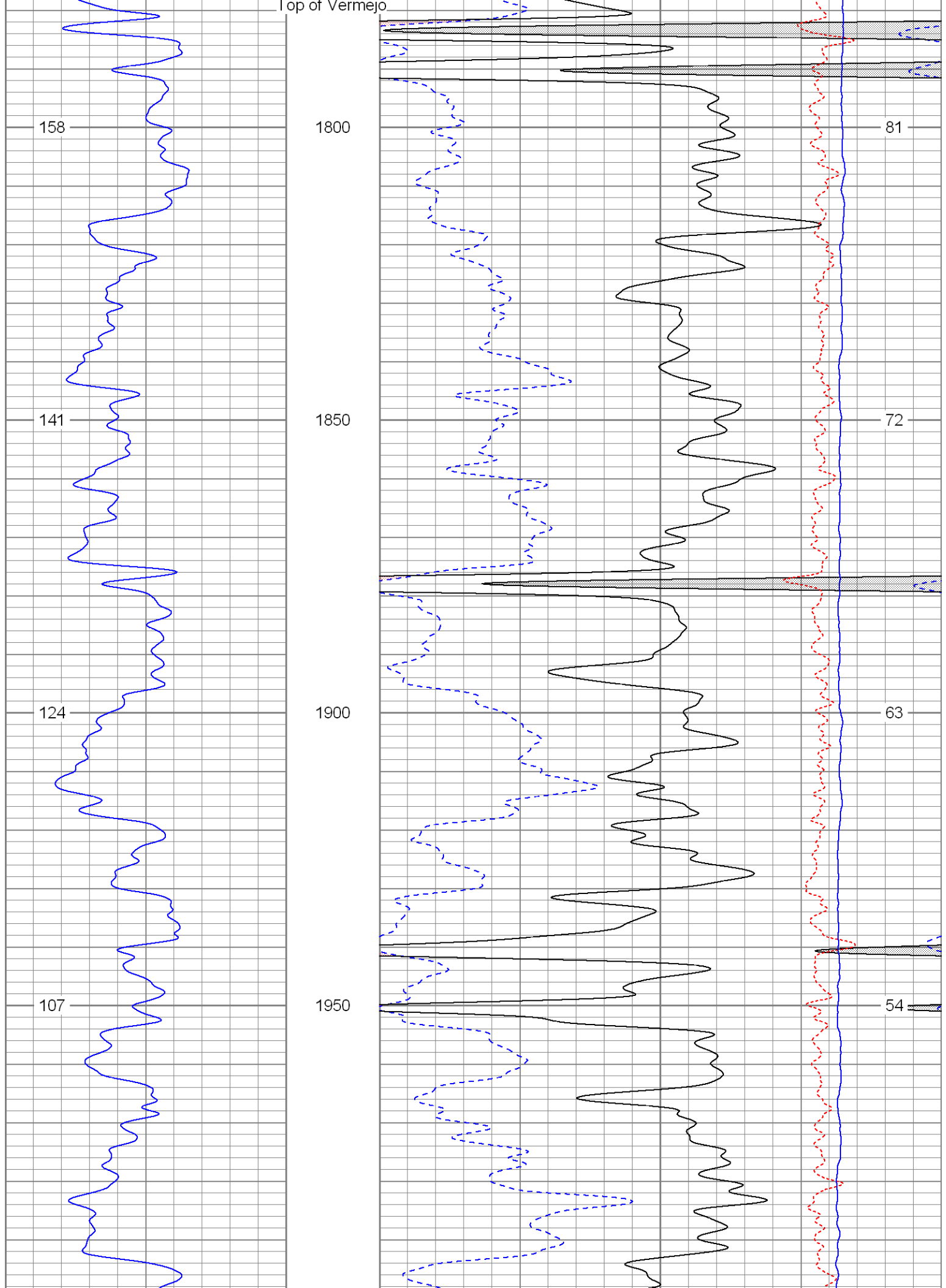


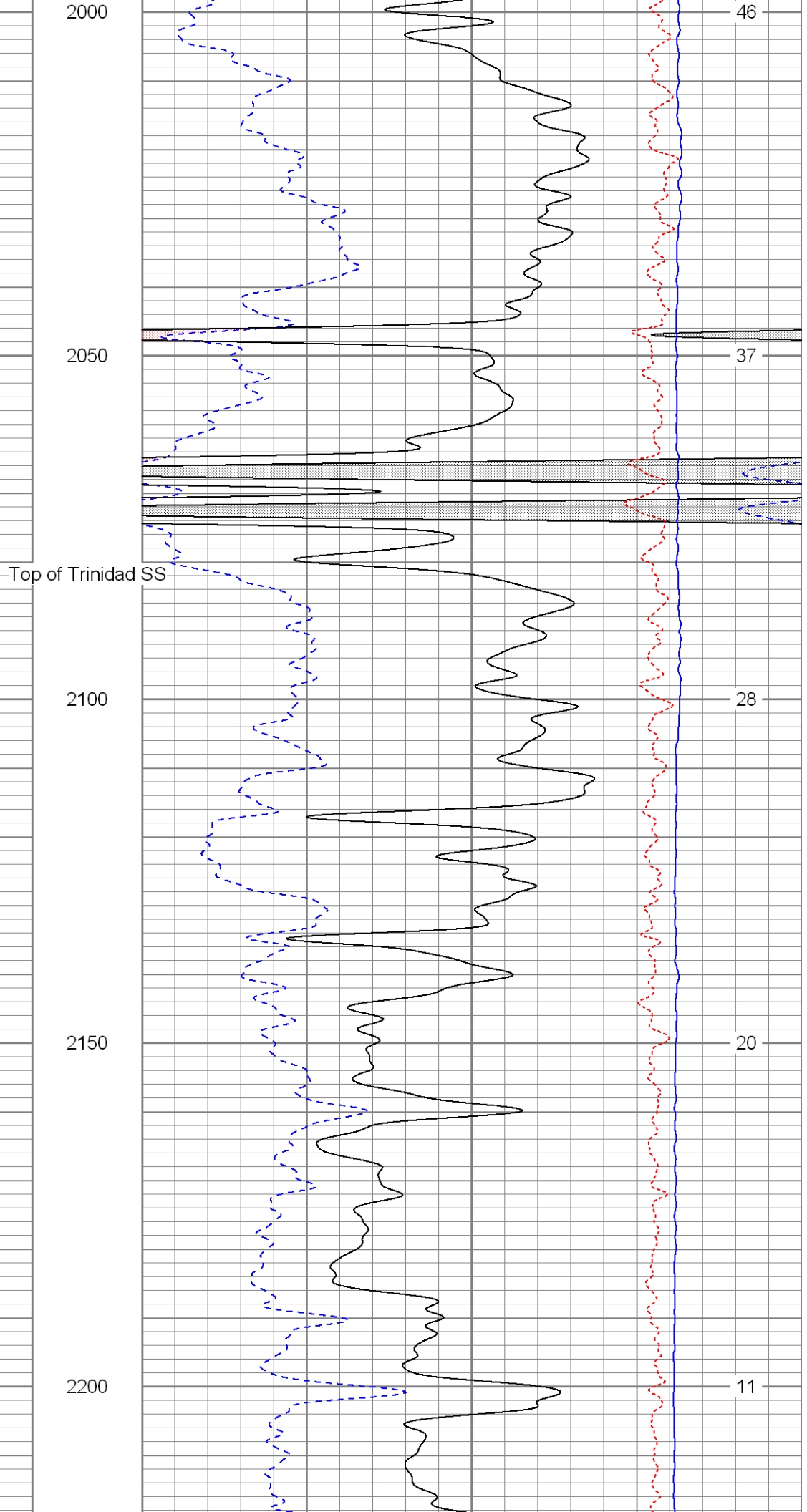
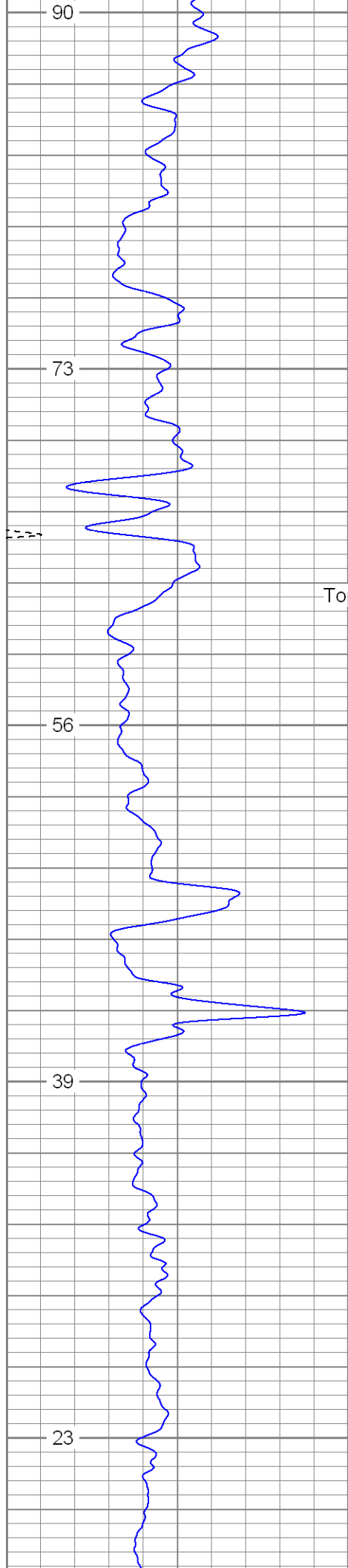


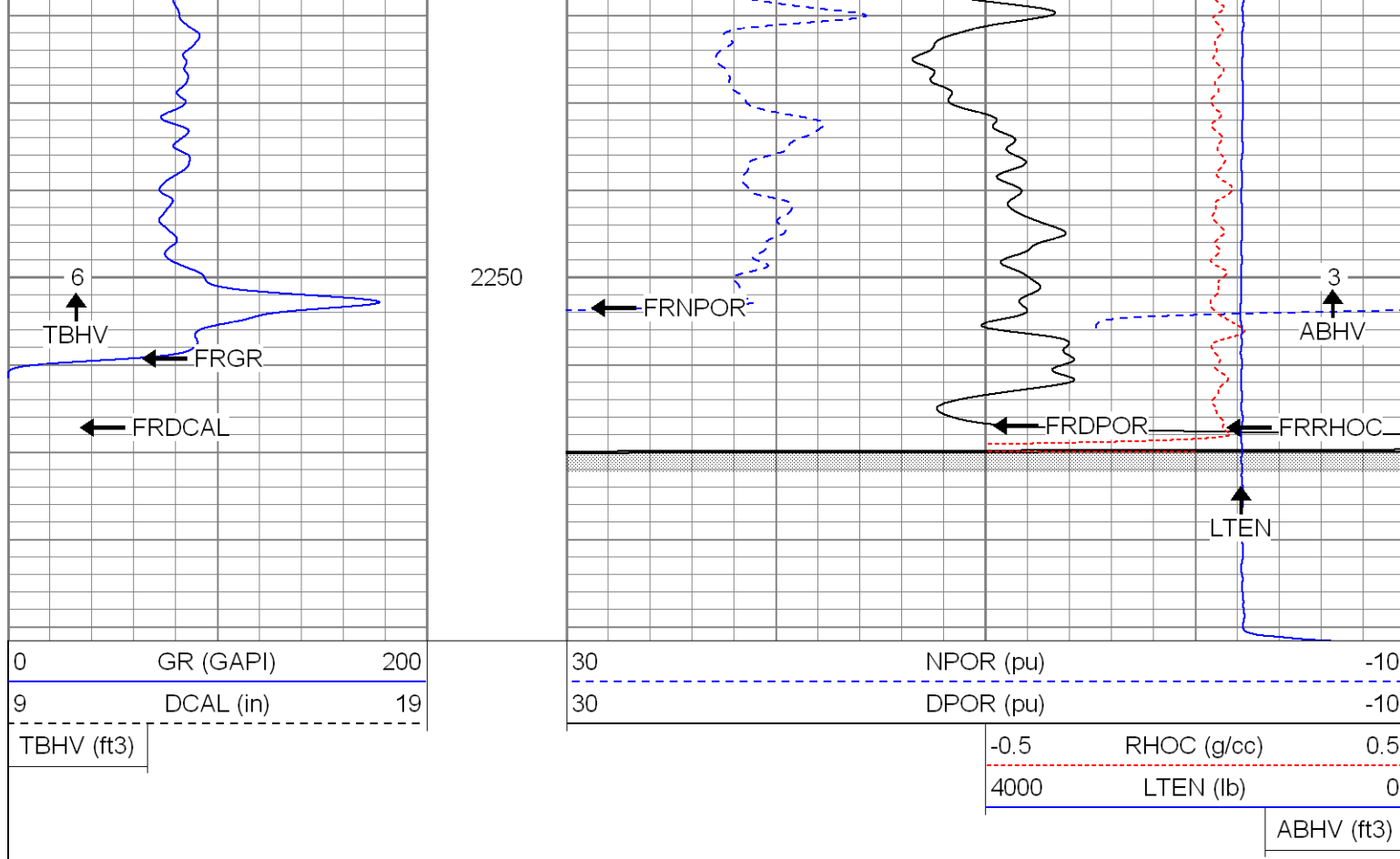




Top of Vermejo





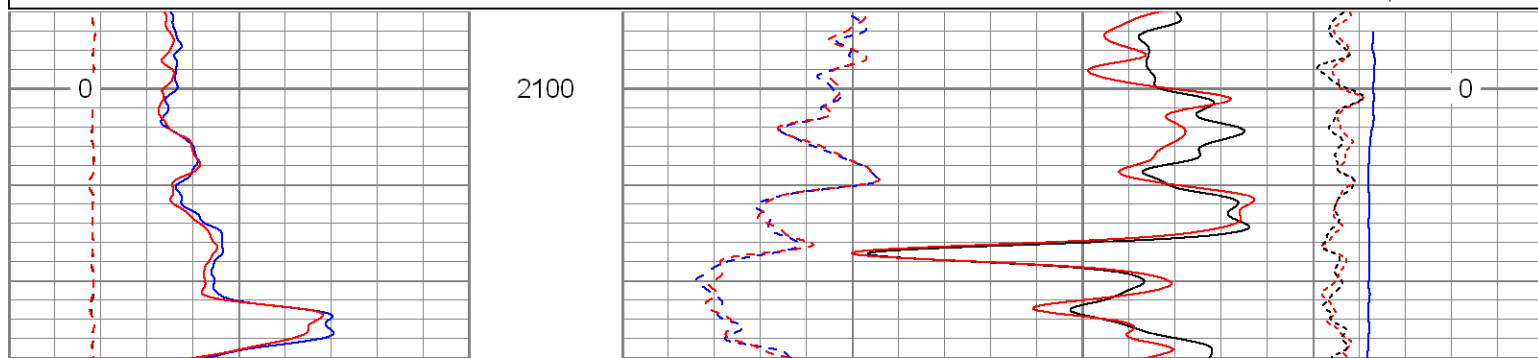
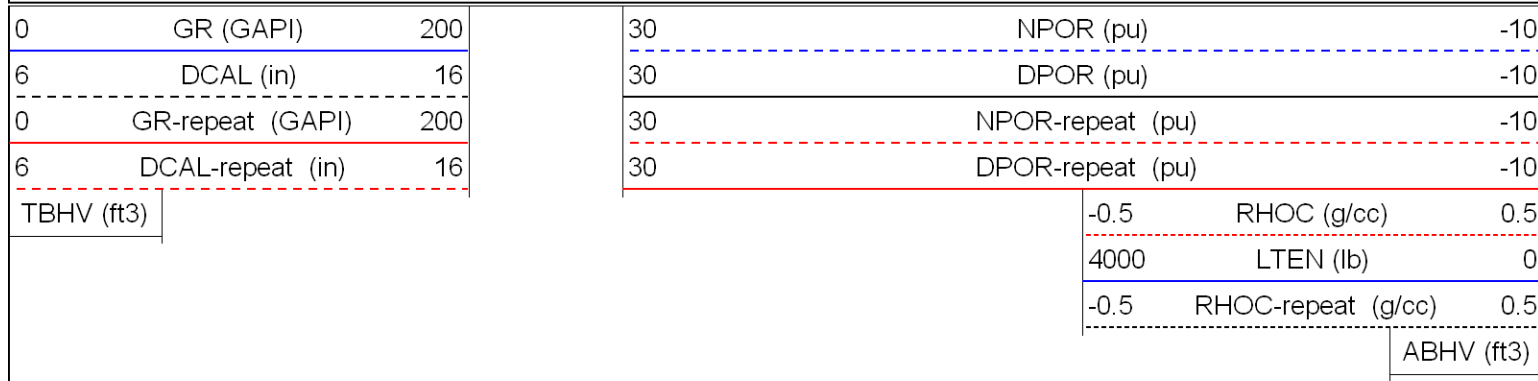


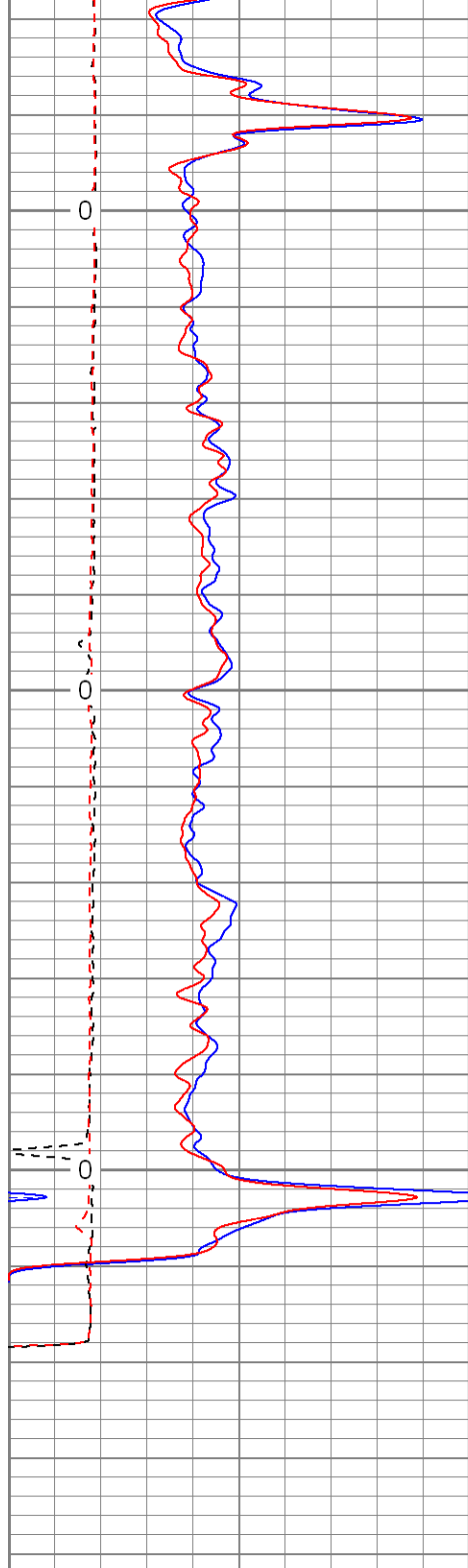
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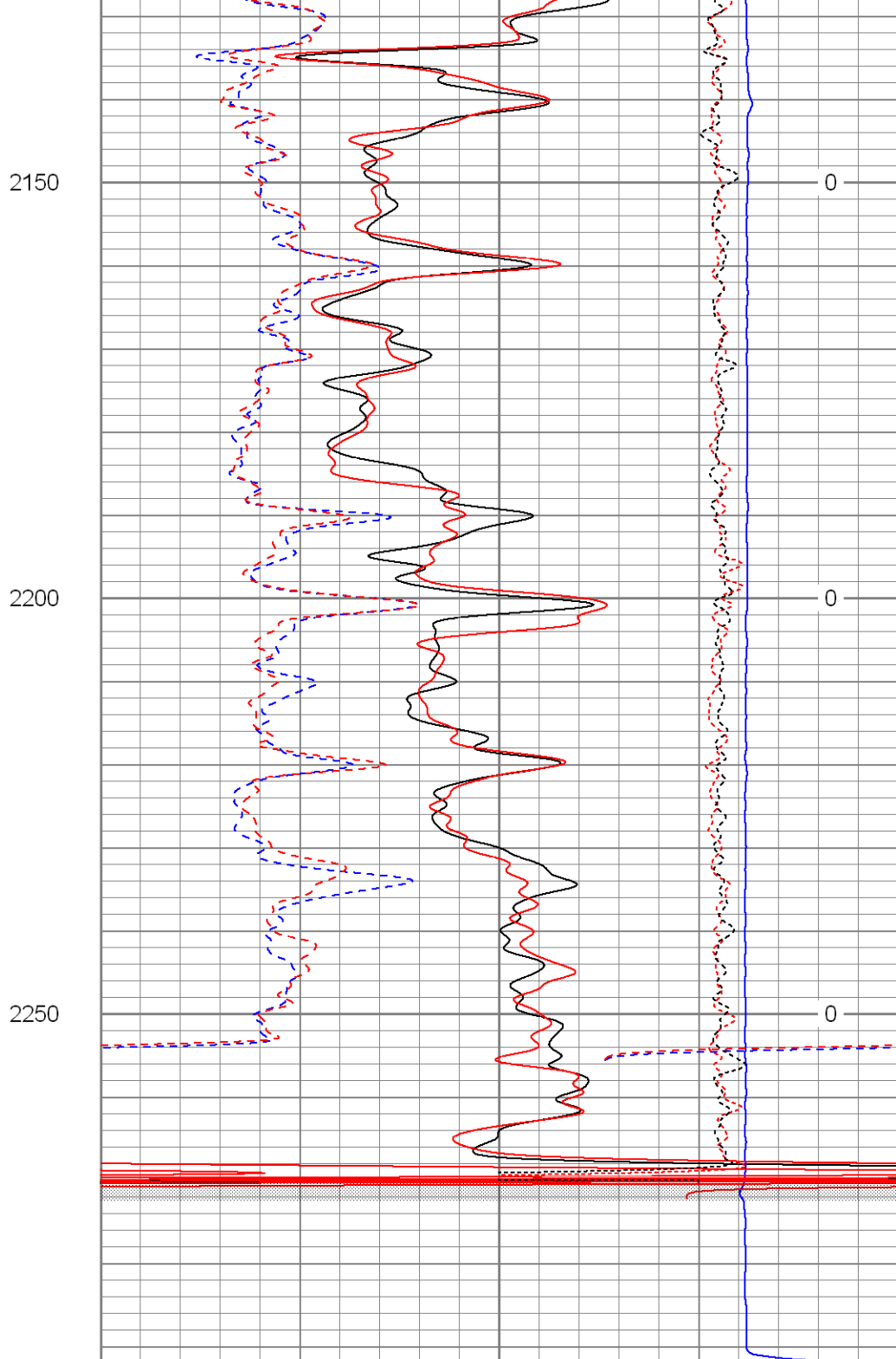
Repeat Pass

Database File: xtohre2309.db
Dataset Pathname: pass1.2
Presentation Format: cdnl
Dataset Creation: Wed Apr 09 08:05:07 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240





0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16
TBHV (ft3)		



30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10

-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
ABHV (ft3)		



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Morgan, Pa.

High Resolution Pass



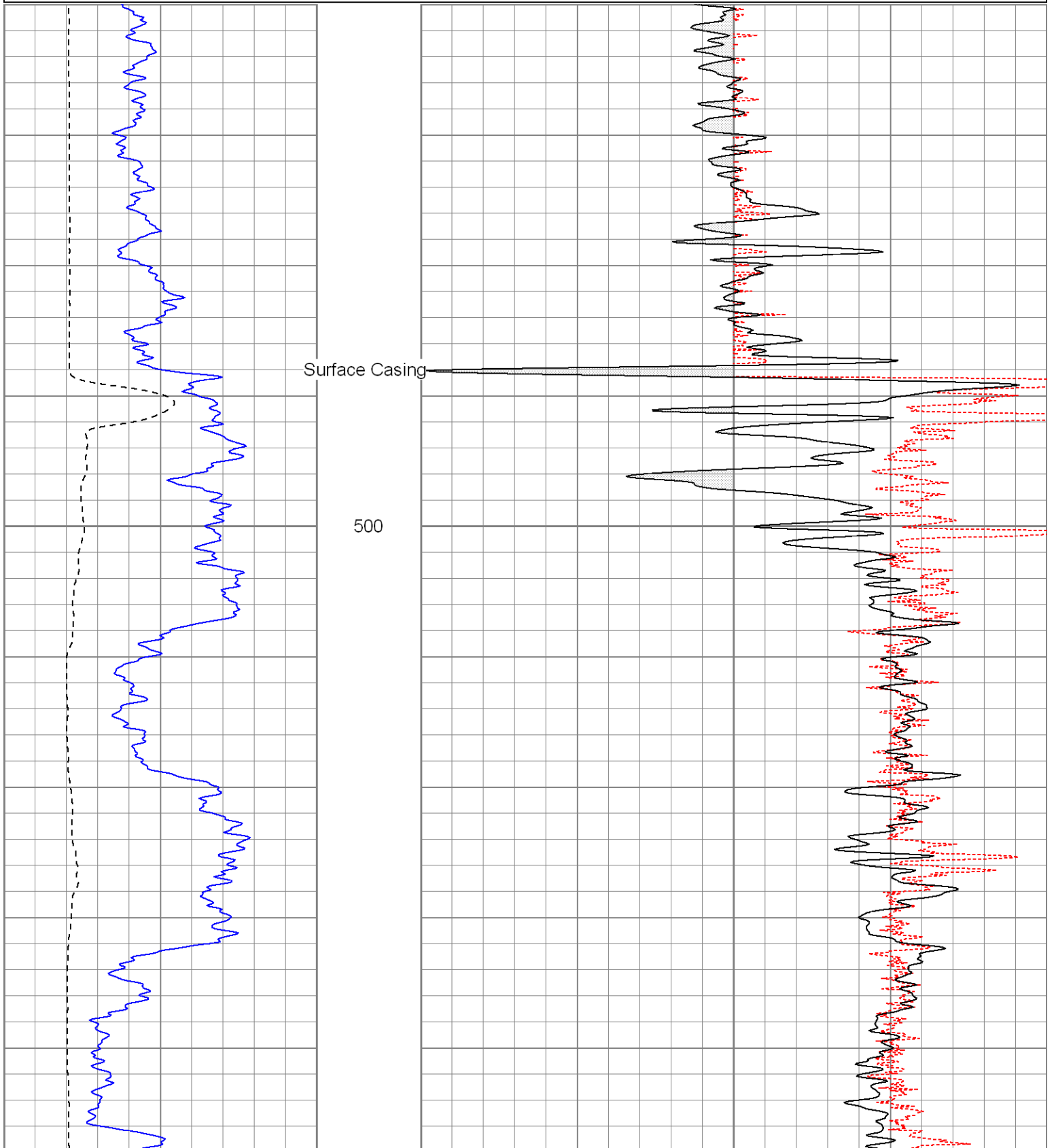
Merger, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

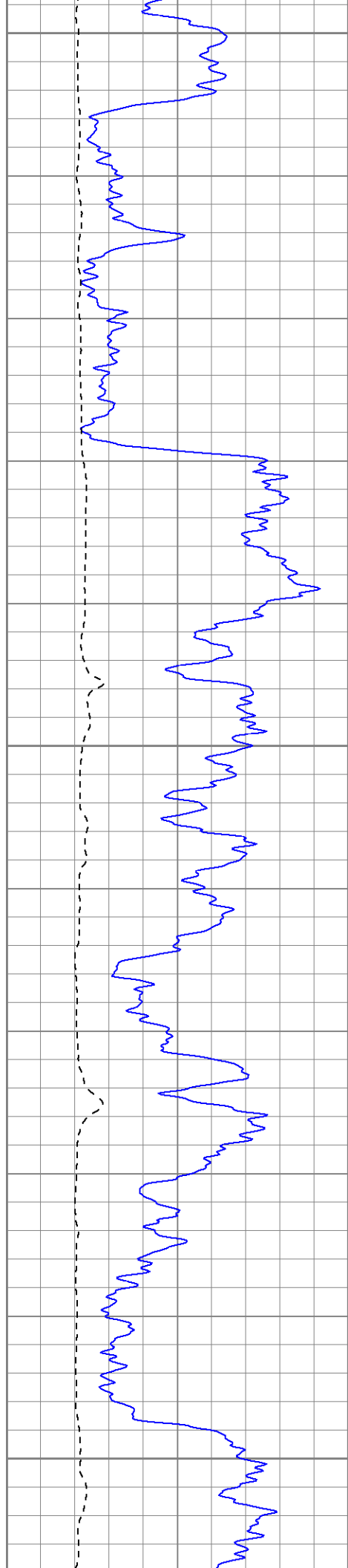
High Resolution Pass

Database File: xtohre2309.db
Dataset Pathname: pass2.3
Presentation Format: cdlhr
Dataset Creation: Wed Apr 09 08:17:11 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:120

0	GR (GAPI)	200
6	DCAL (in)	16

1	RHOB (g/cc)	3
-0.5	RHOC (g/cc)	0.5

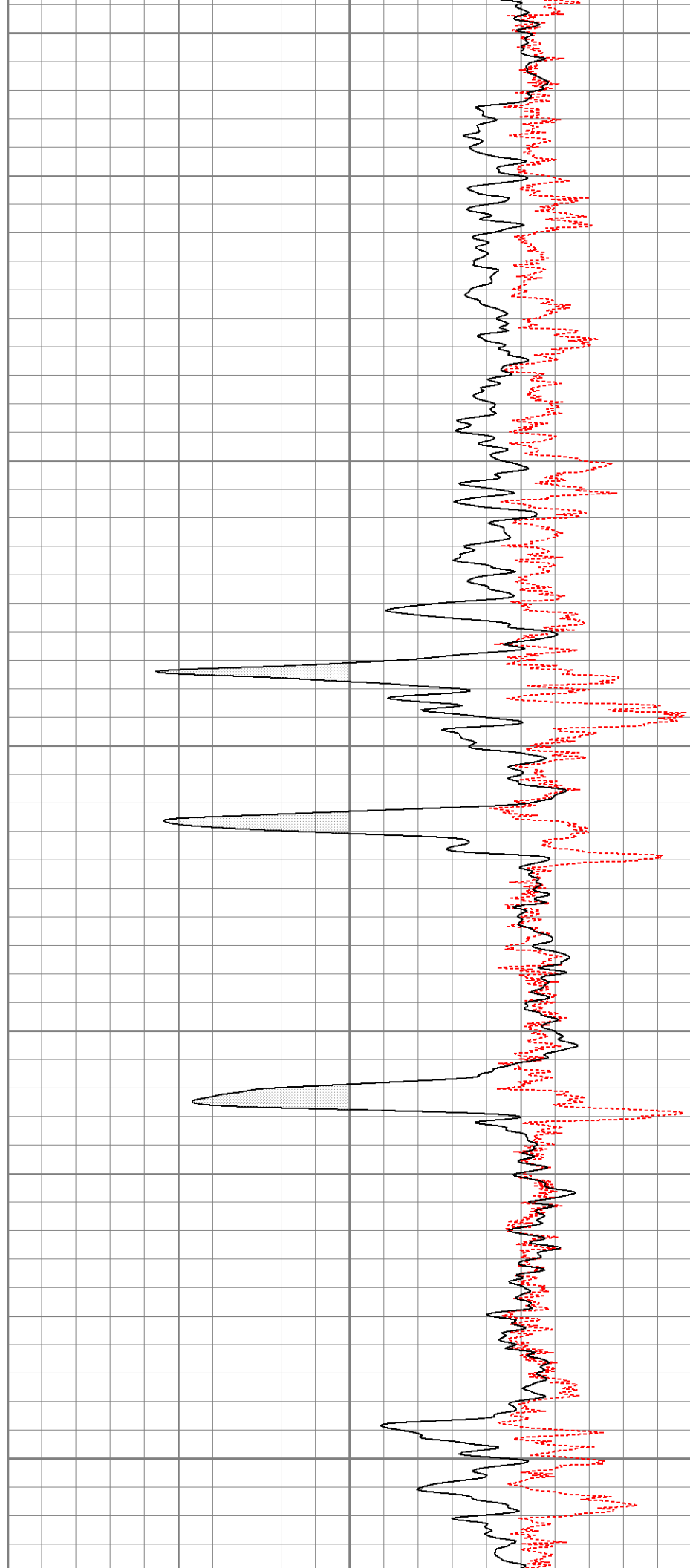


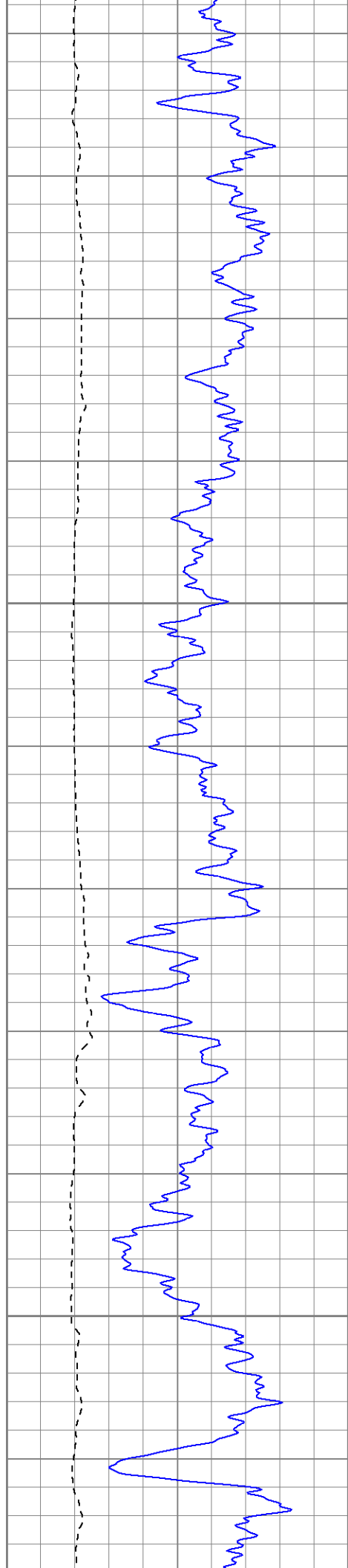


550

600

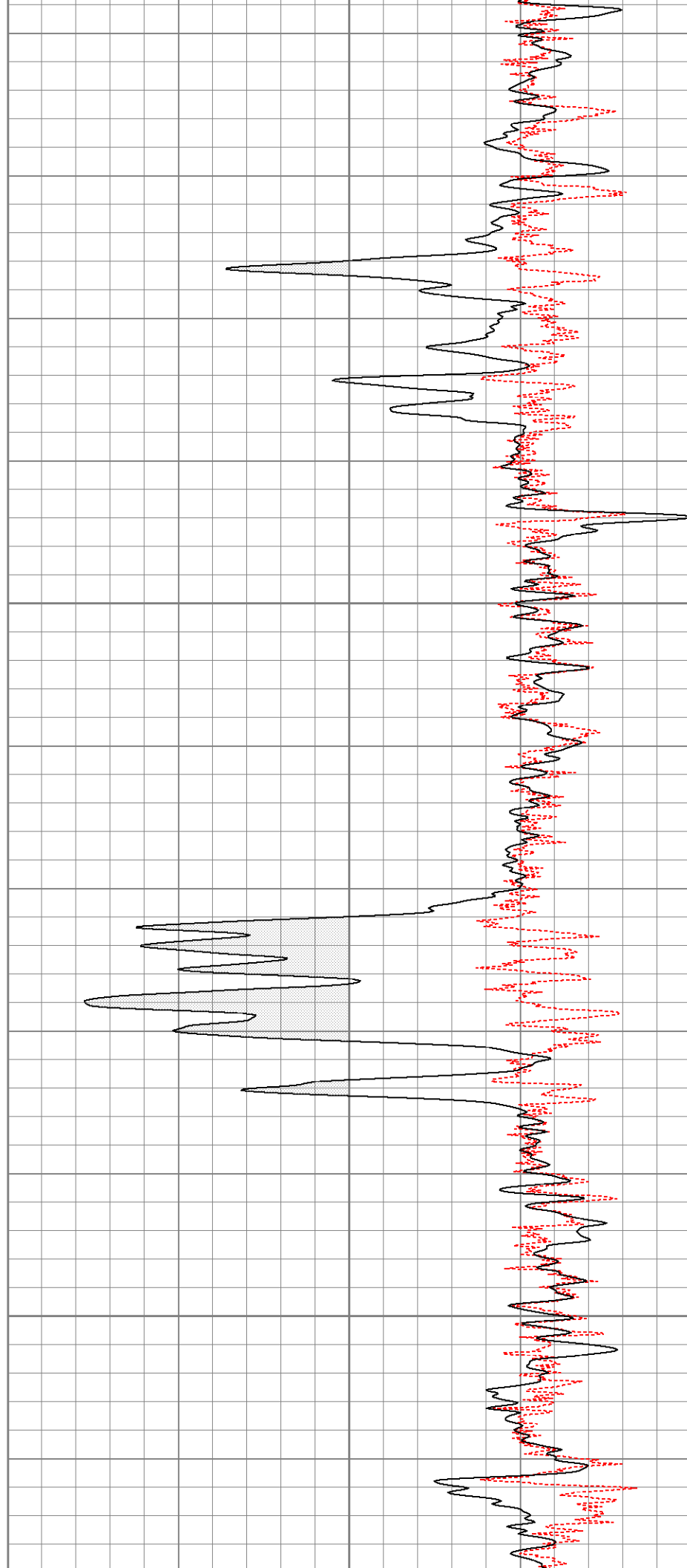
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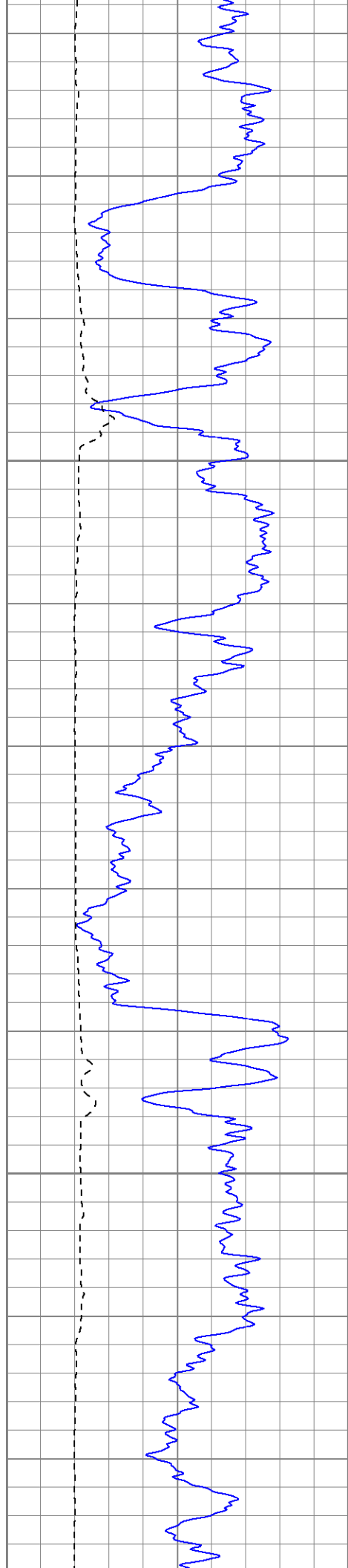




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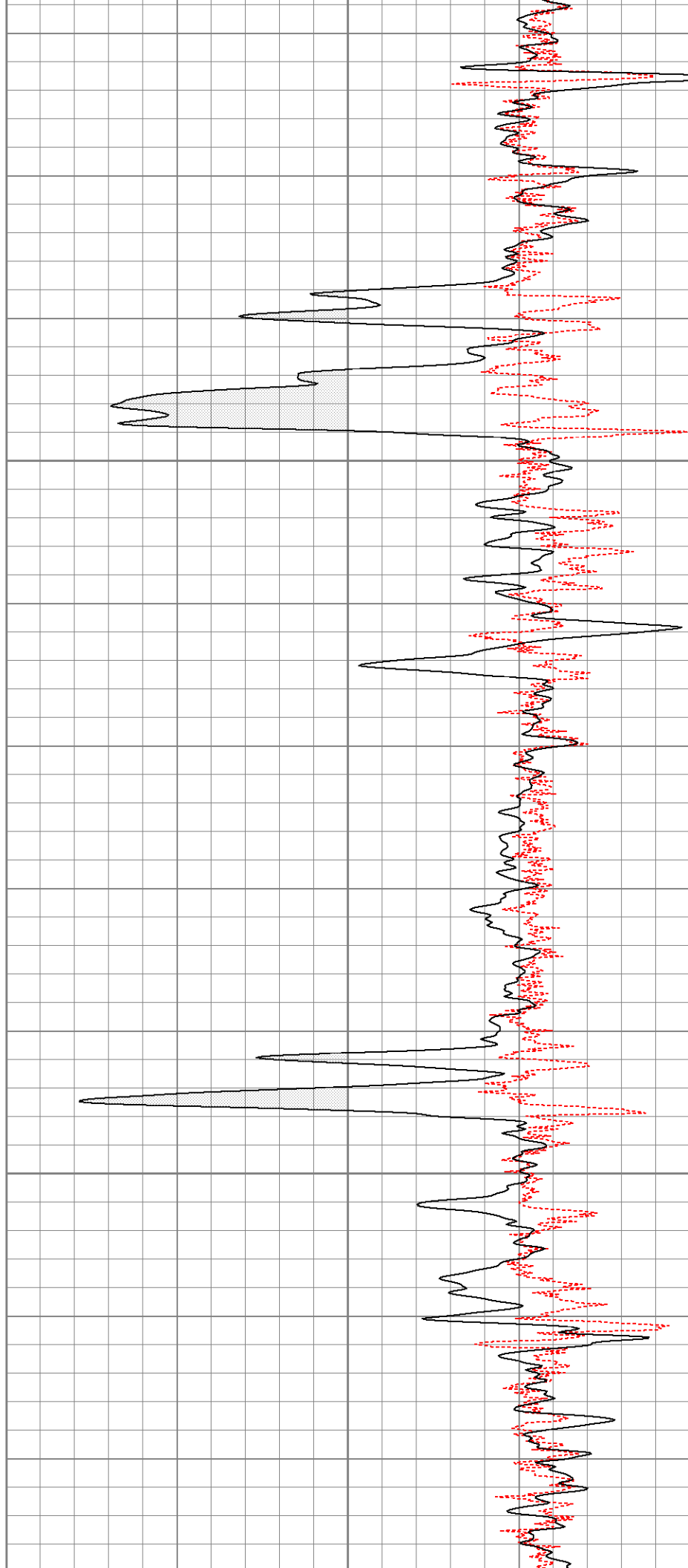
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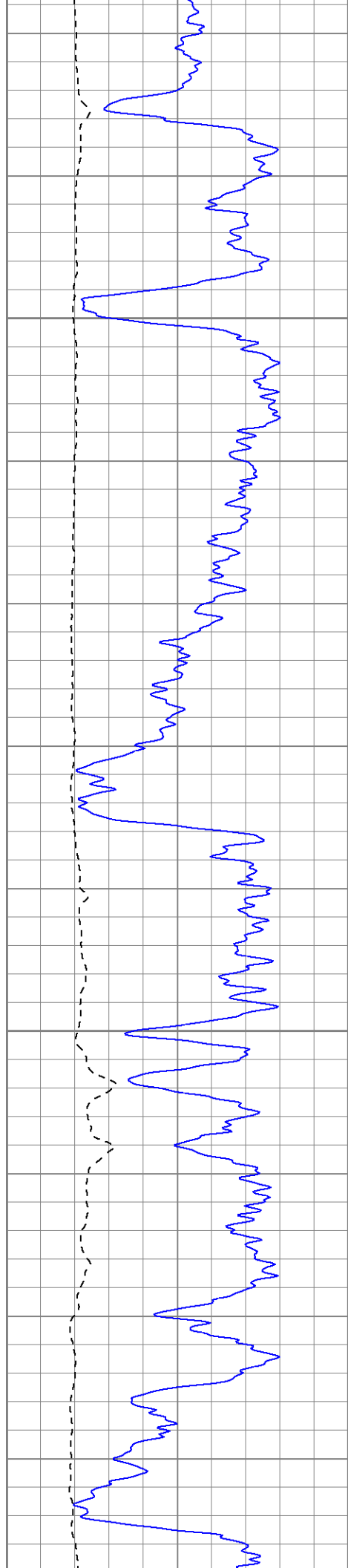




800

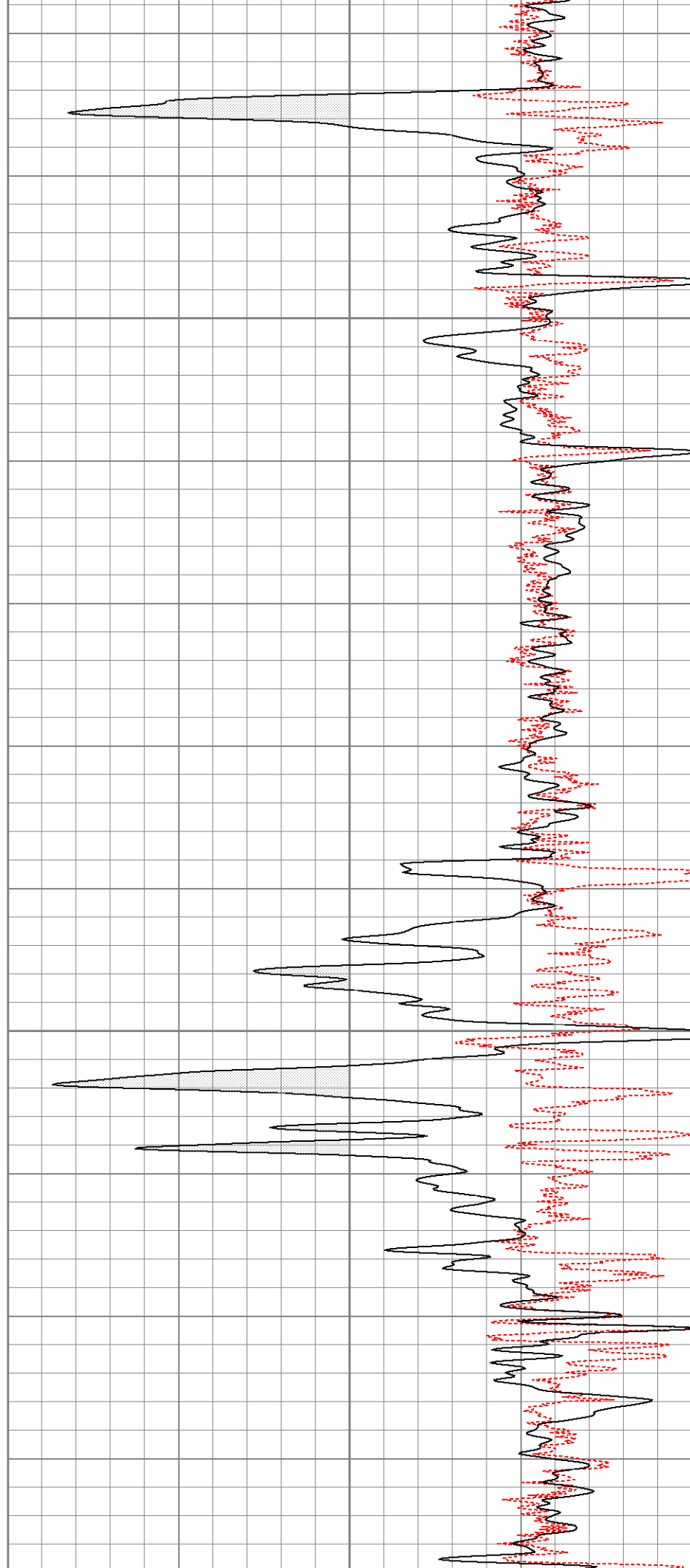
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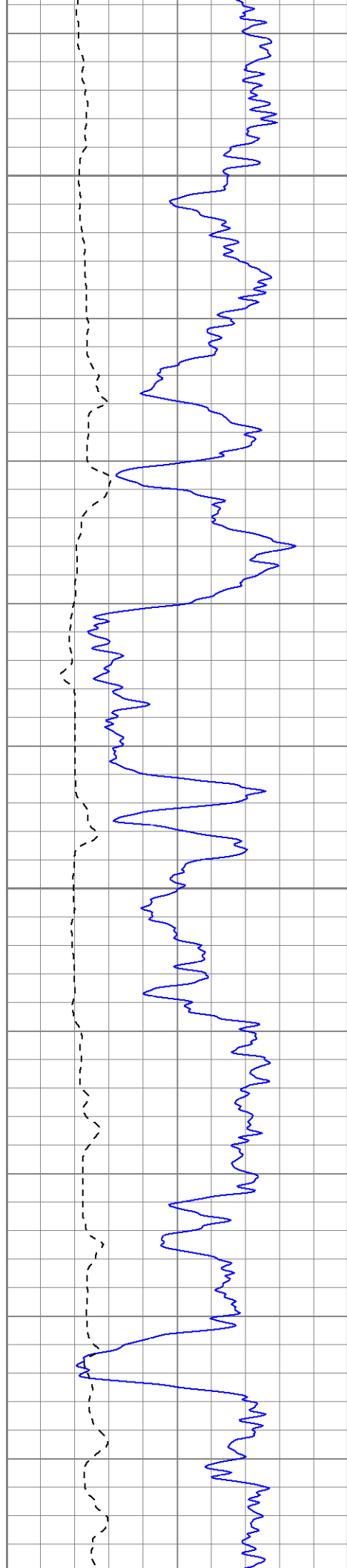




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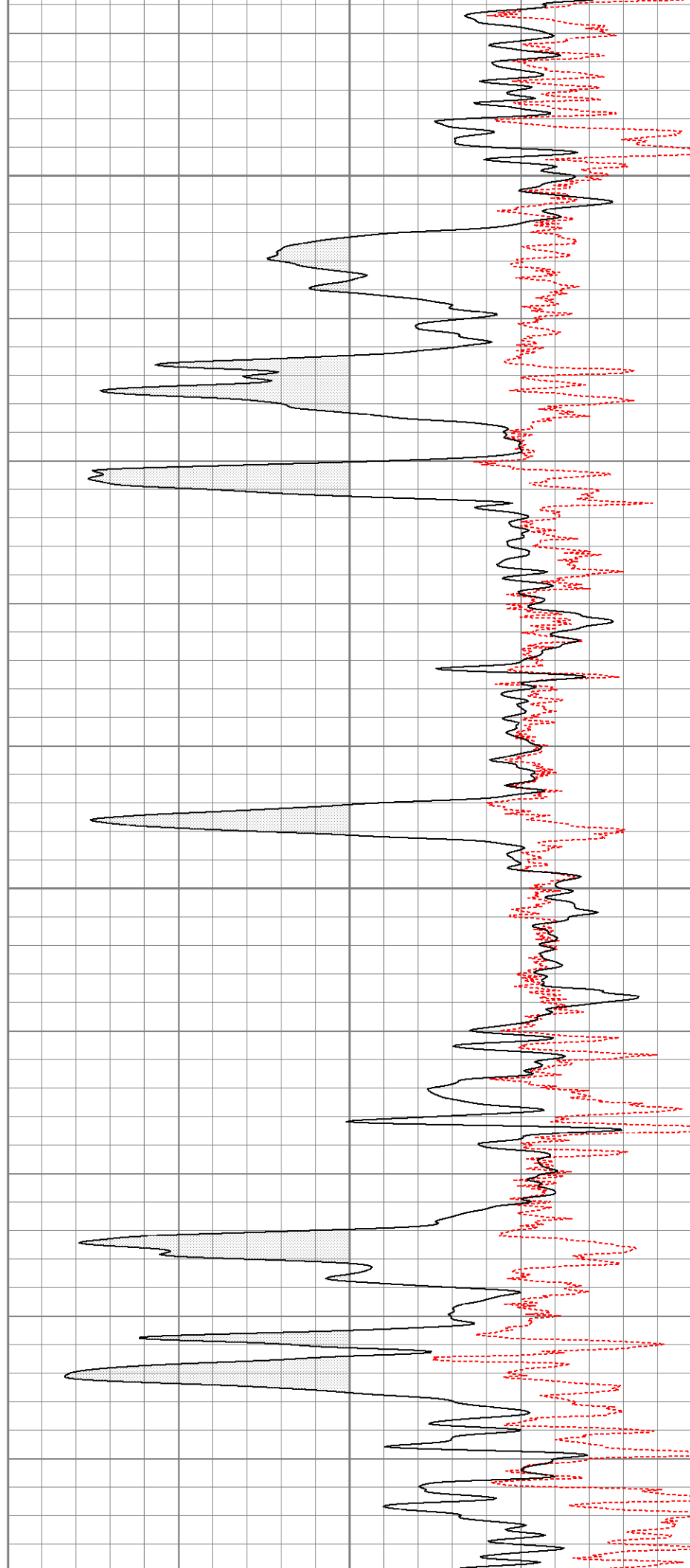
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1000

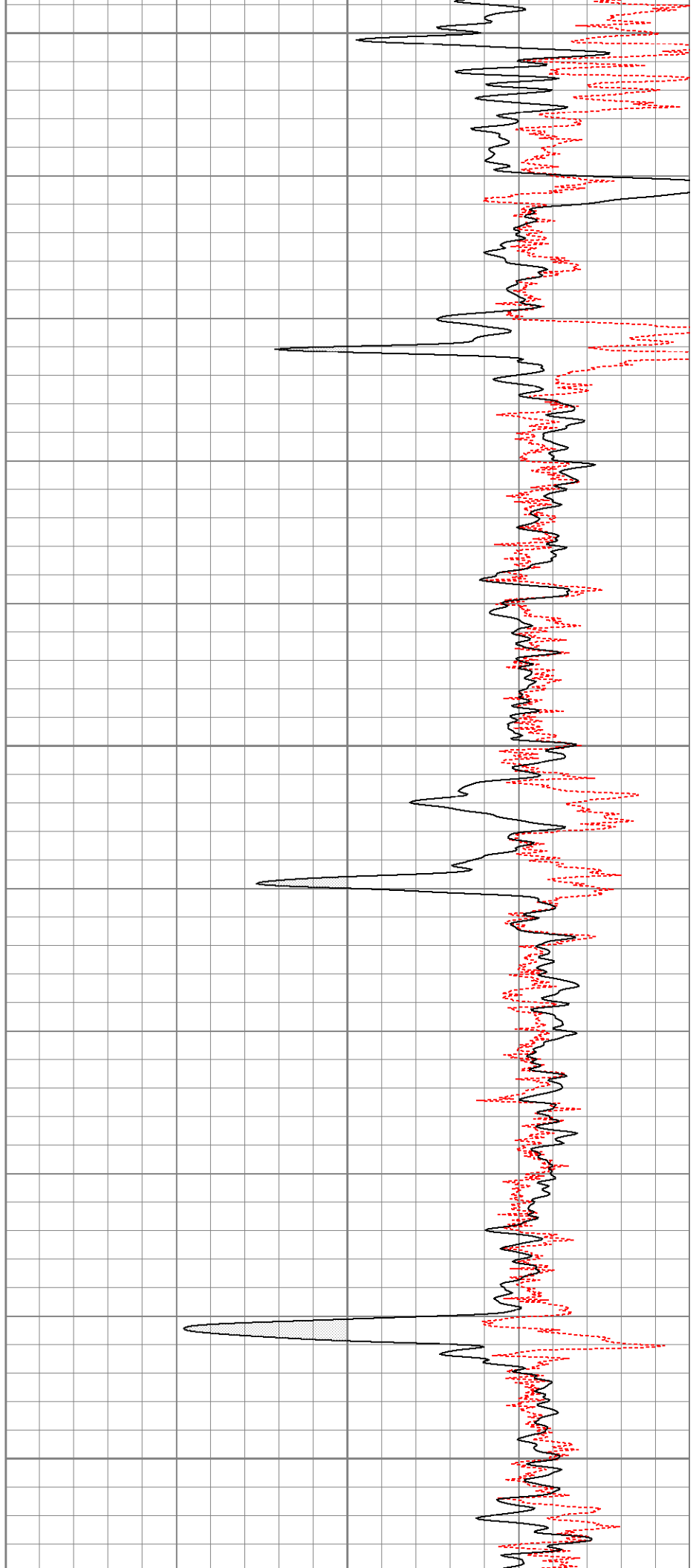
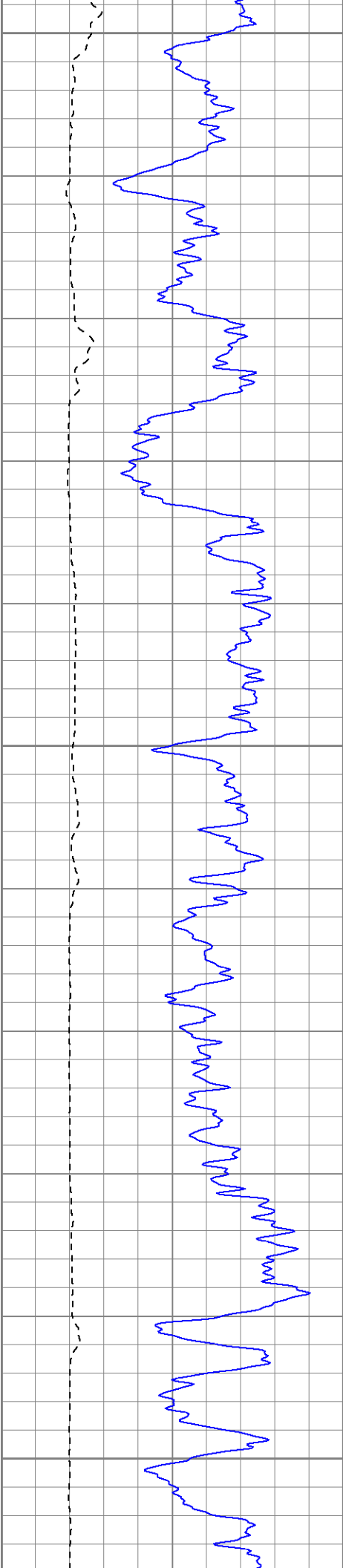
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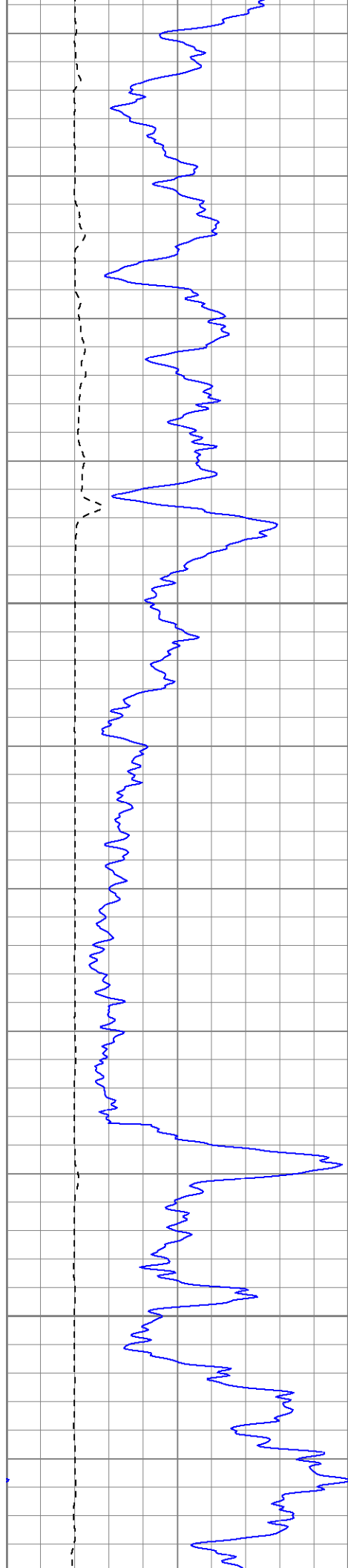


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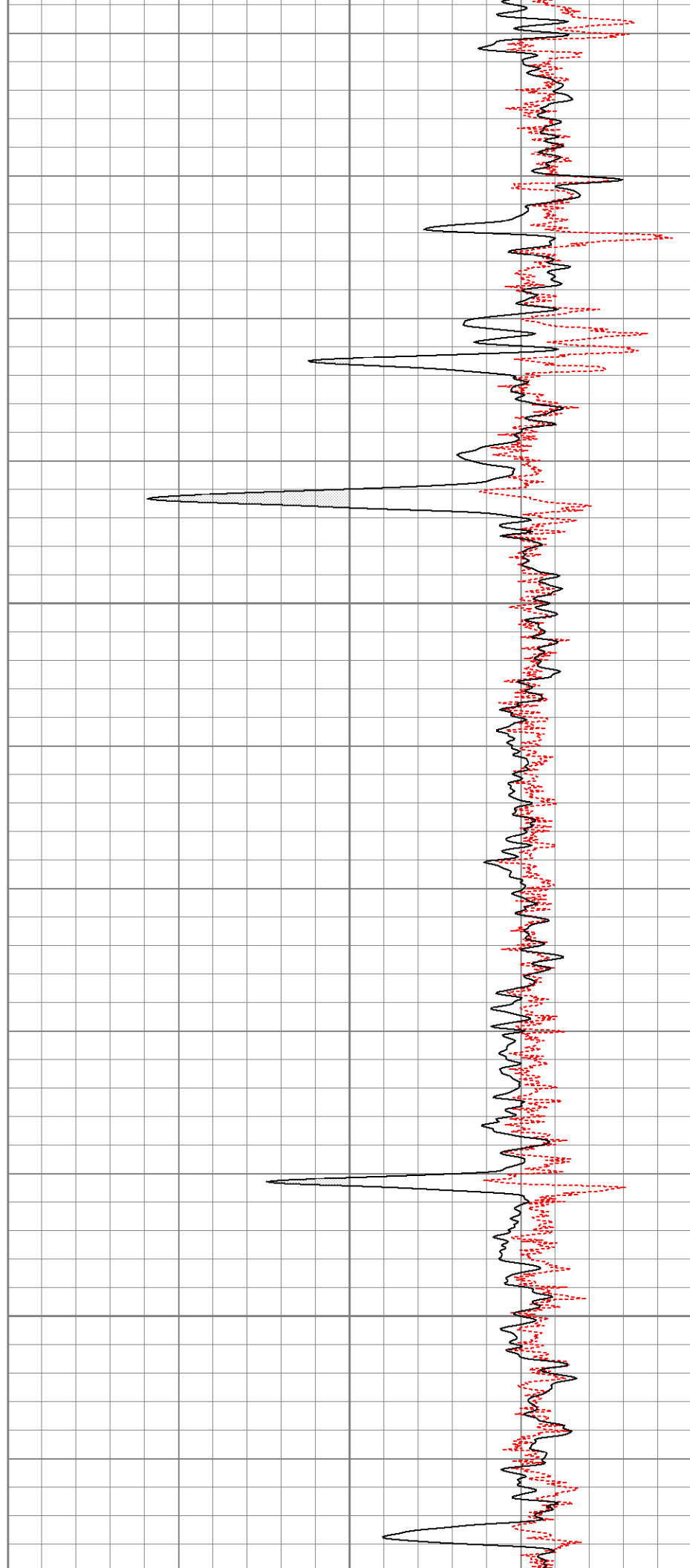
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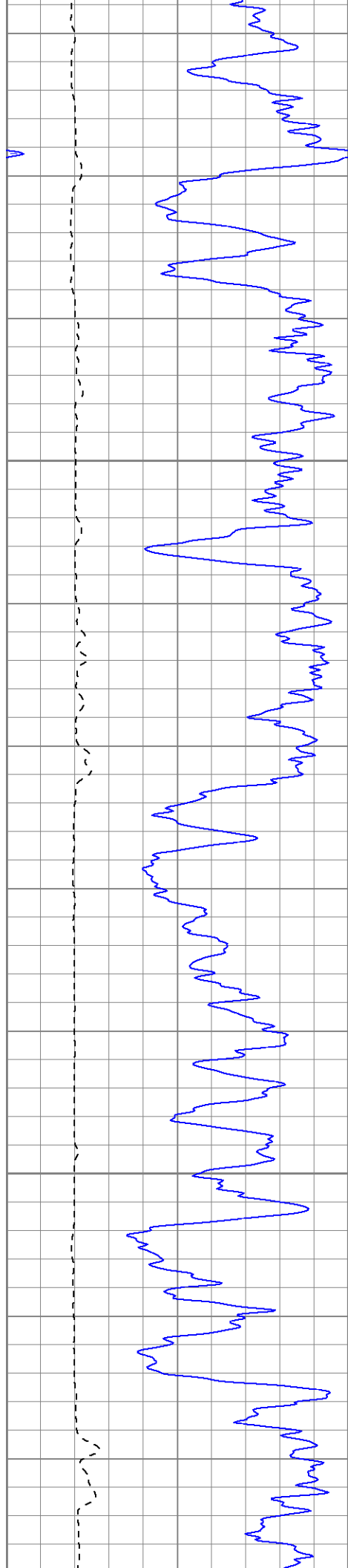




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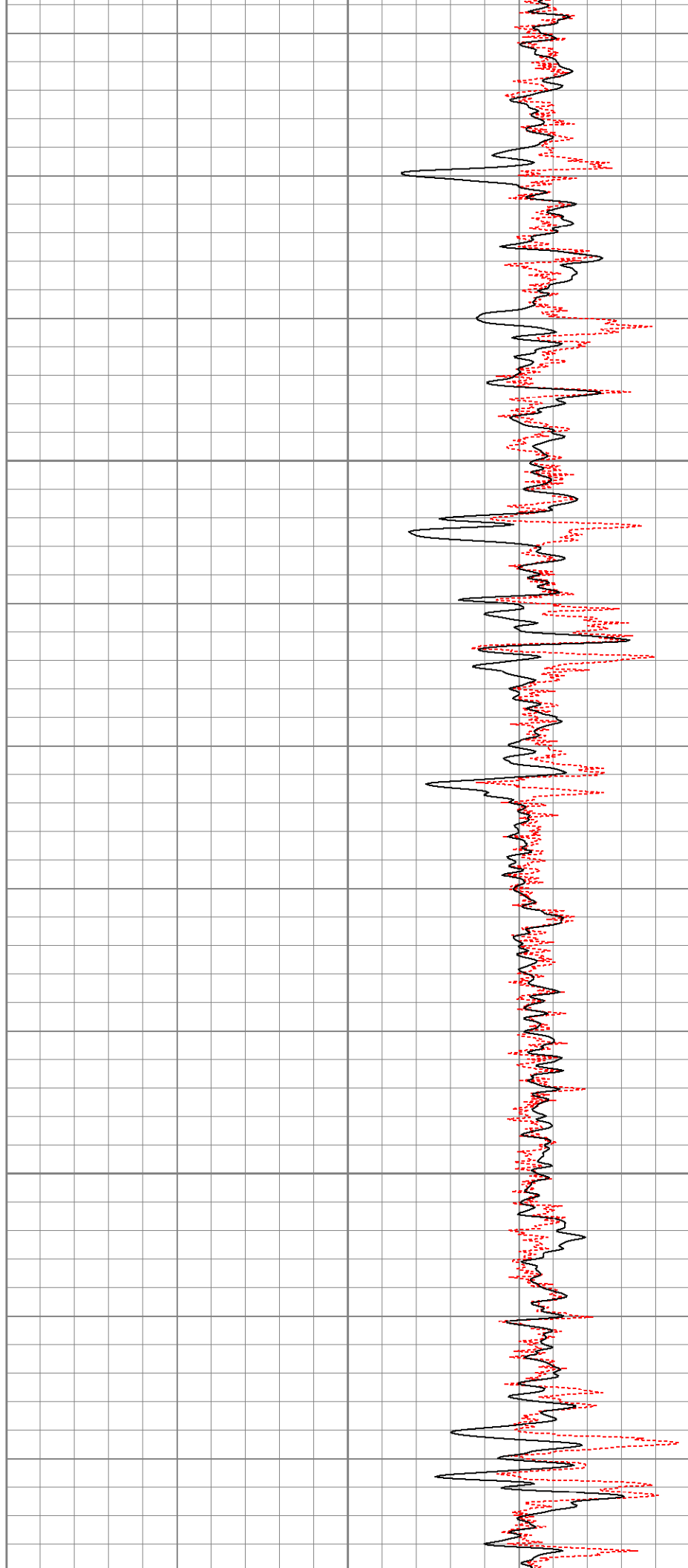
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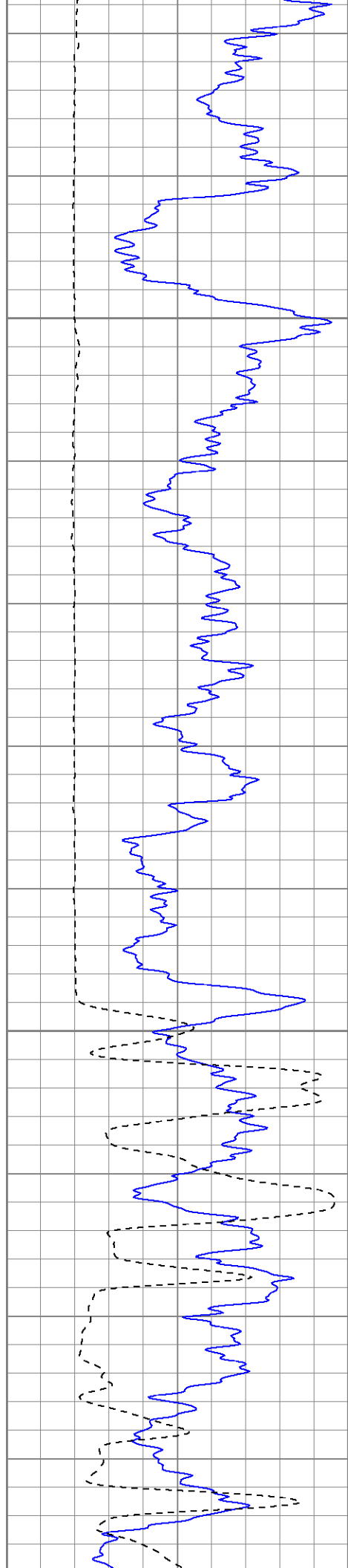




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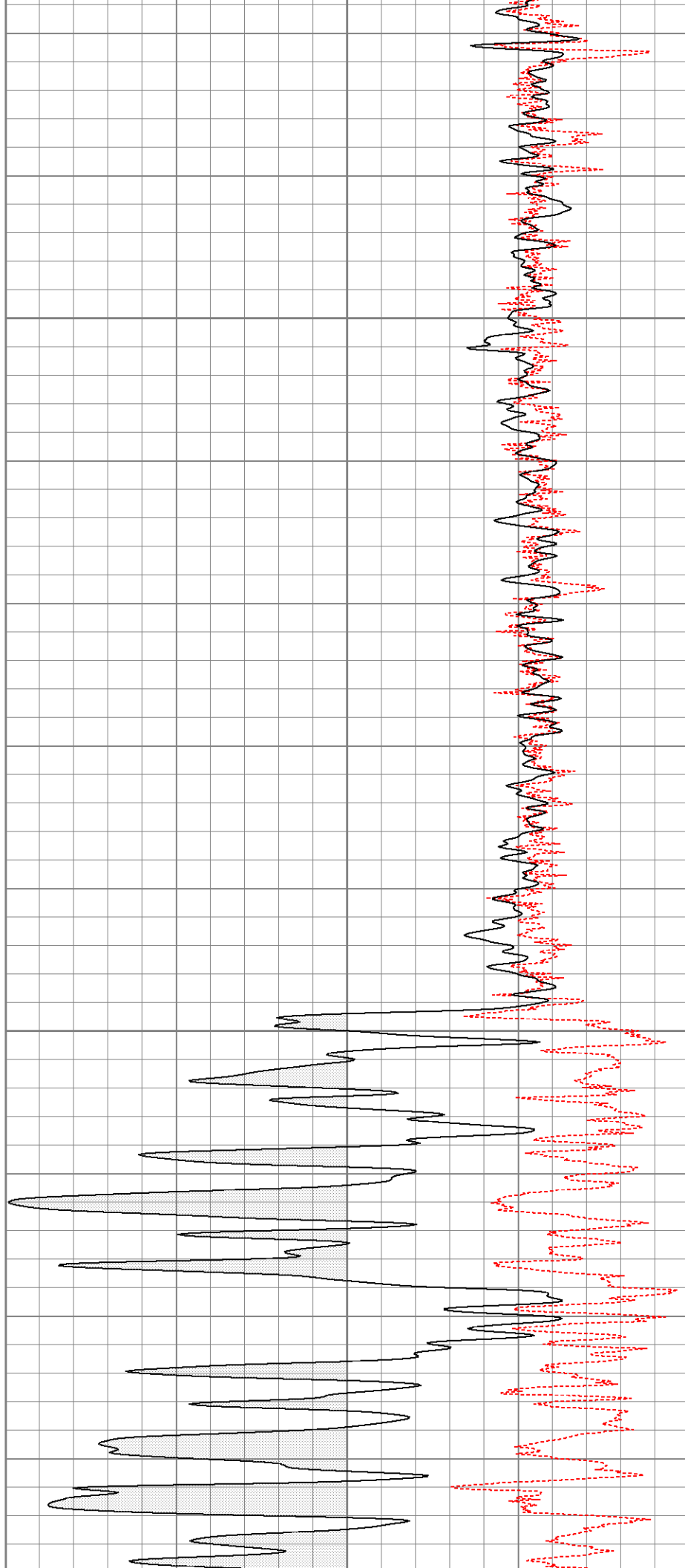
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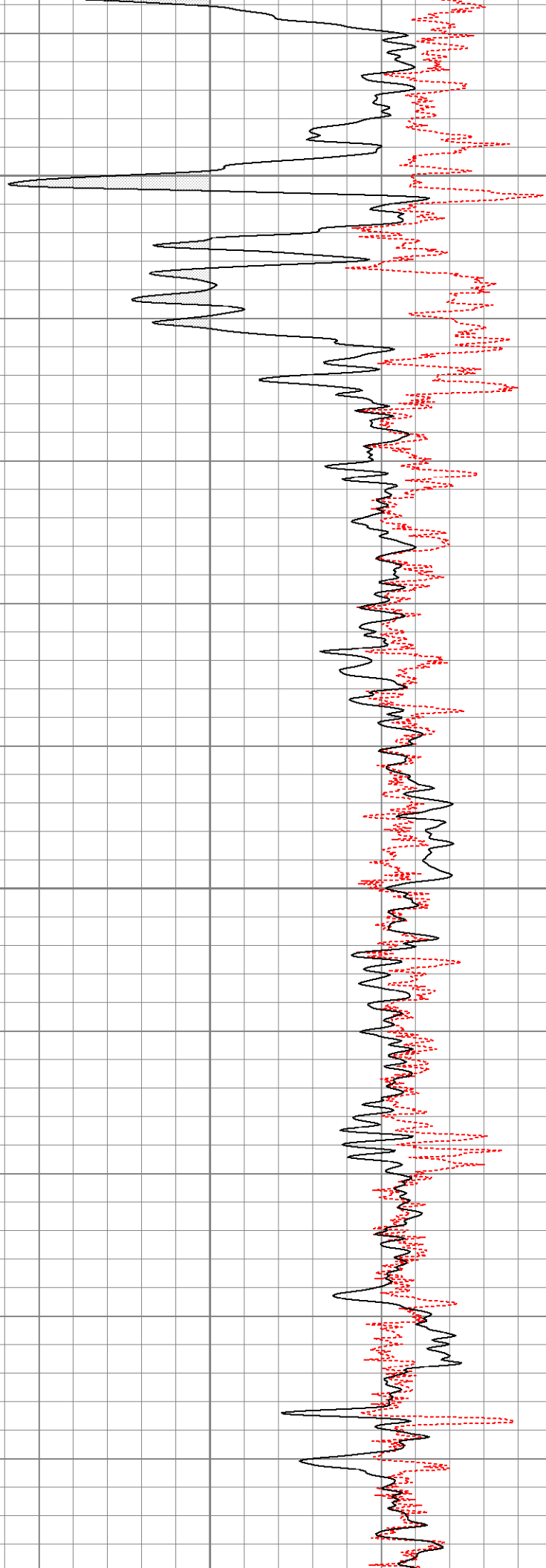
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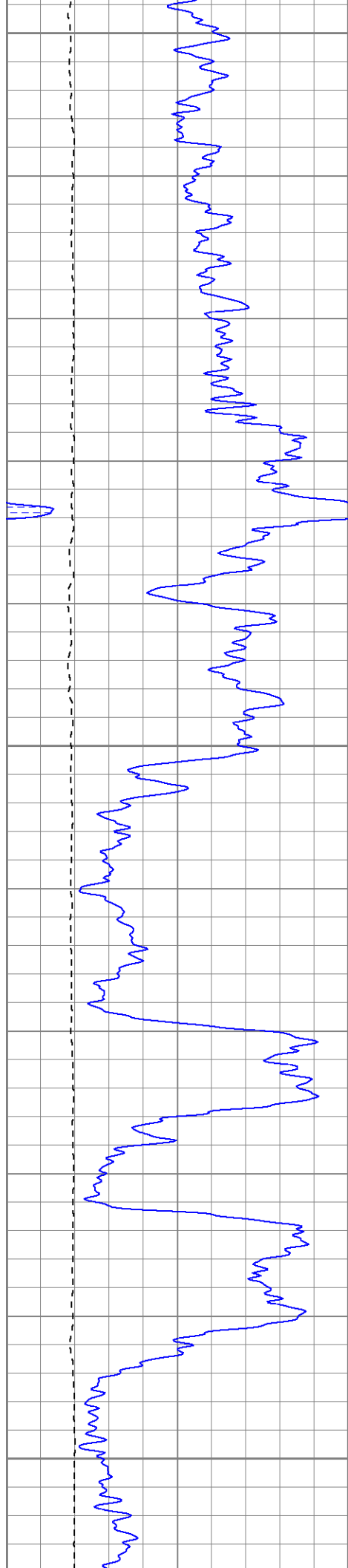
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1550

1600

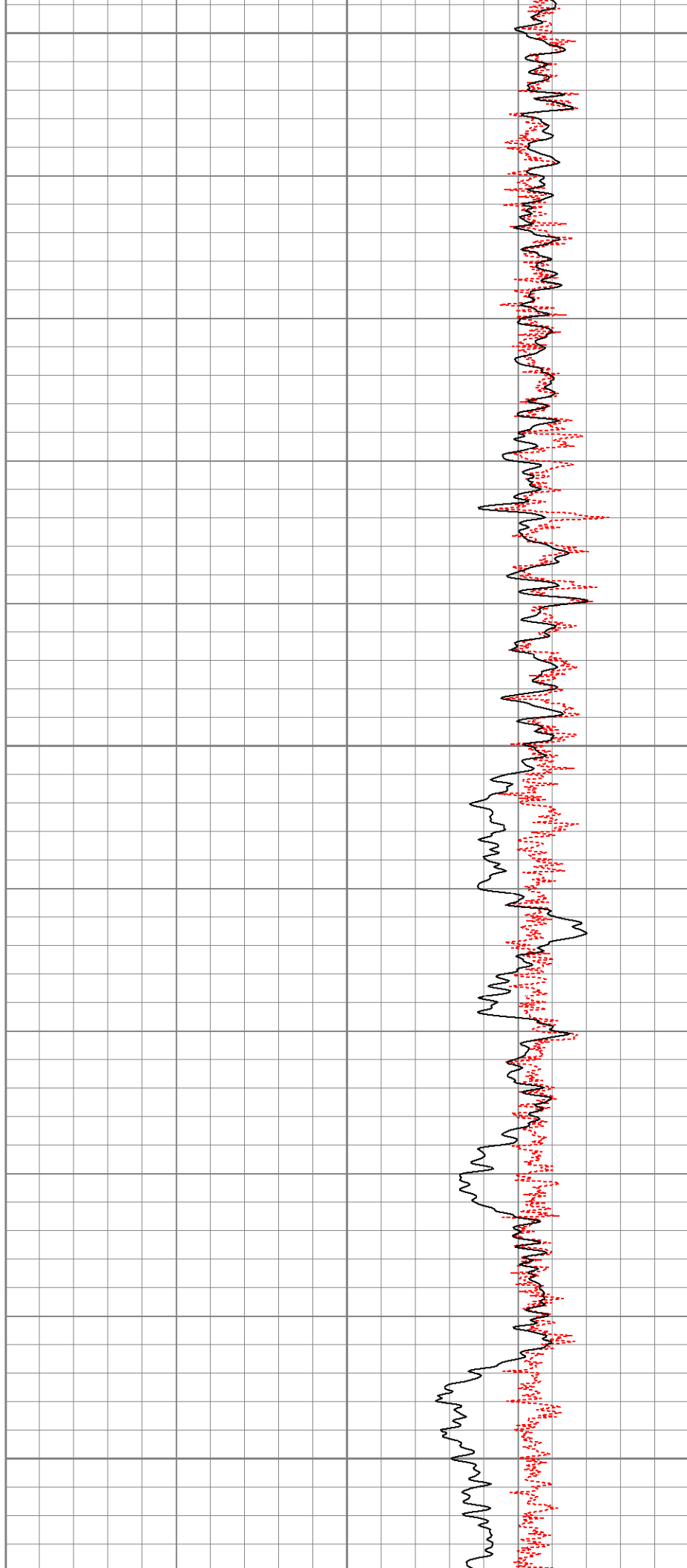


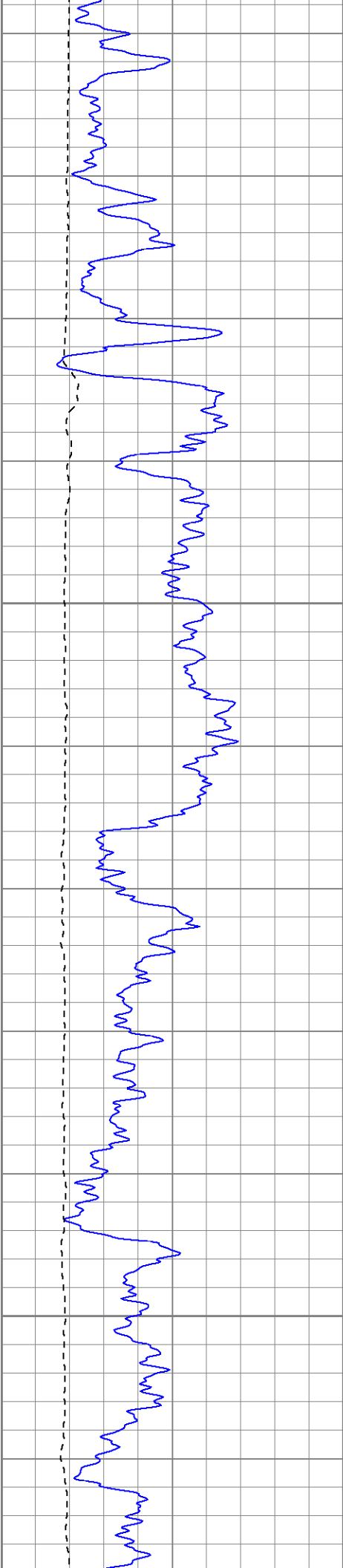


1650

1700

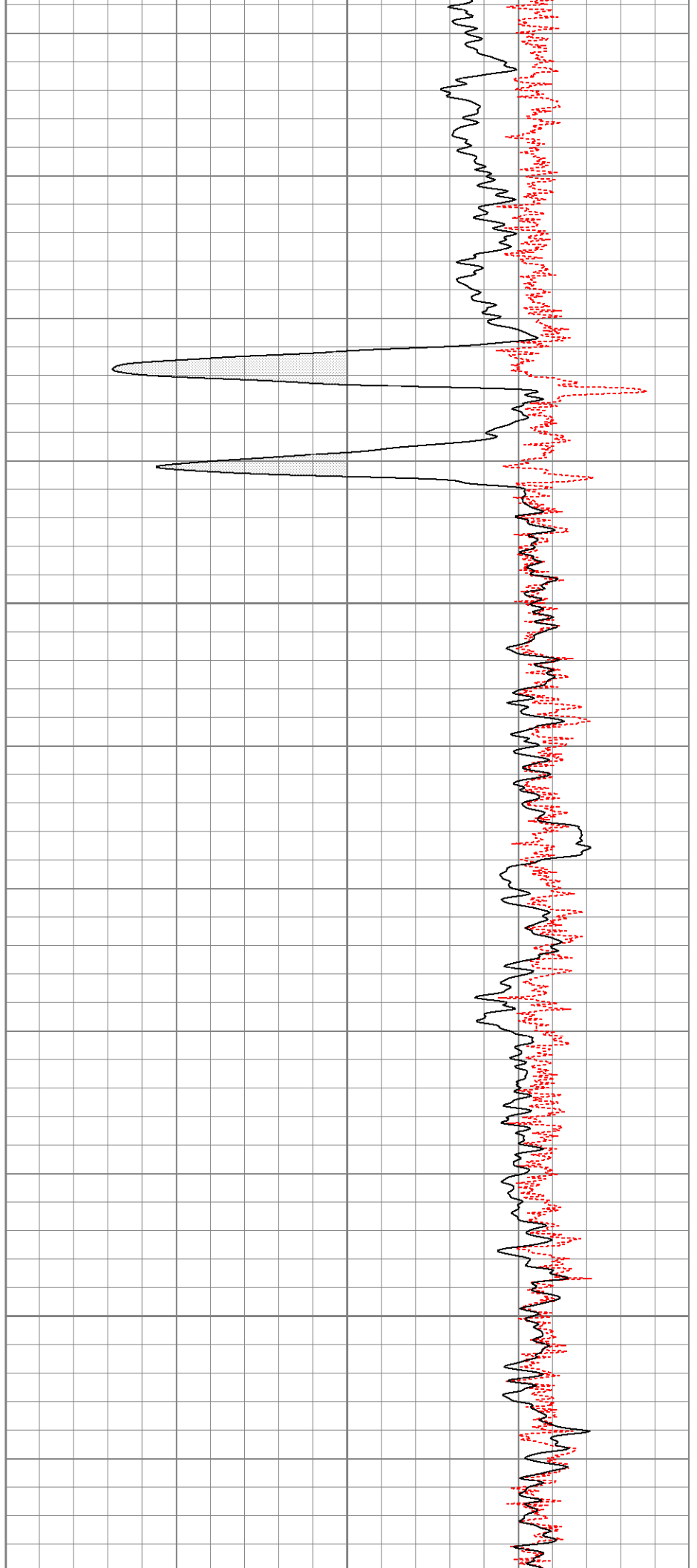
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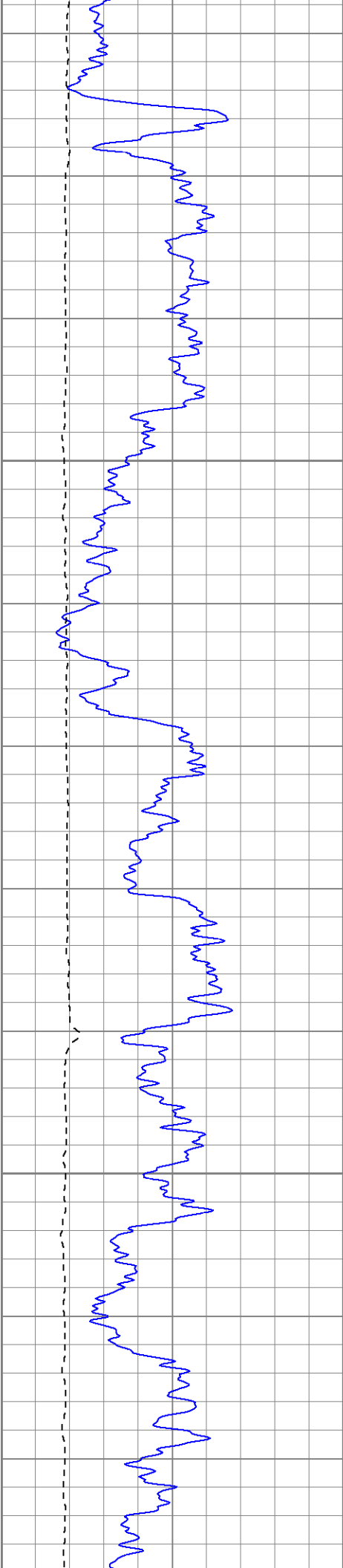




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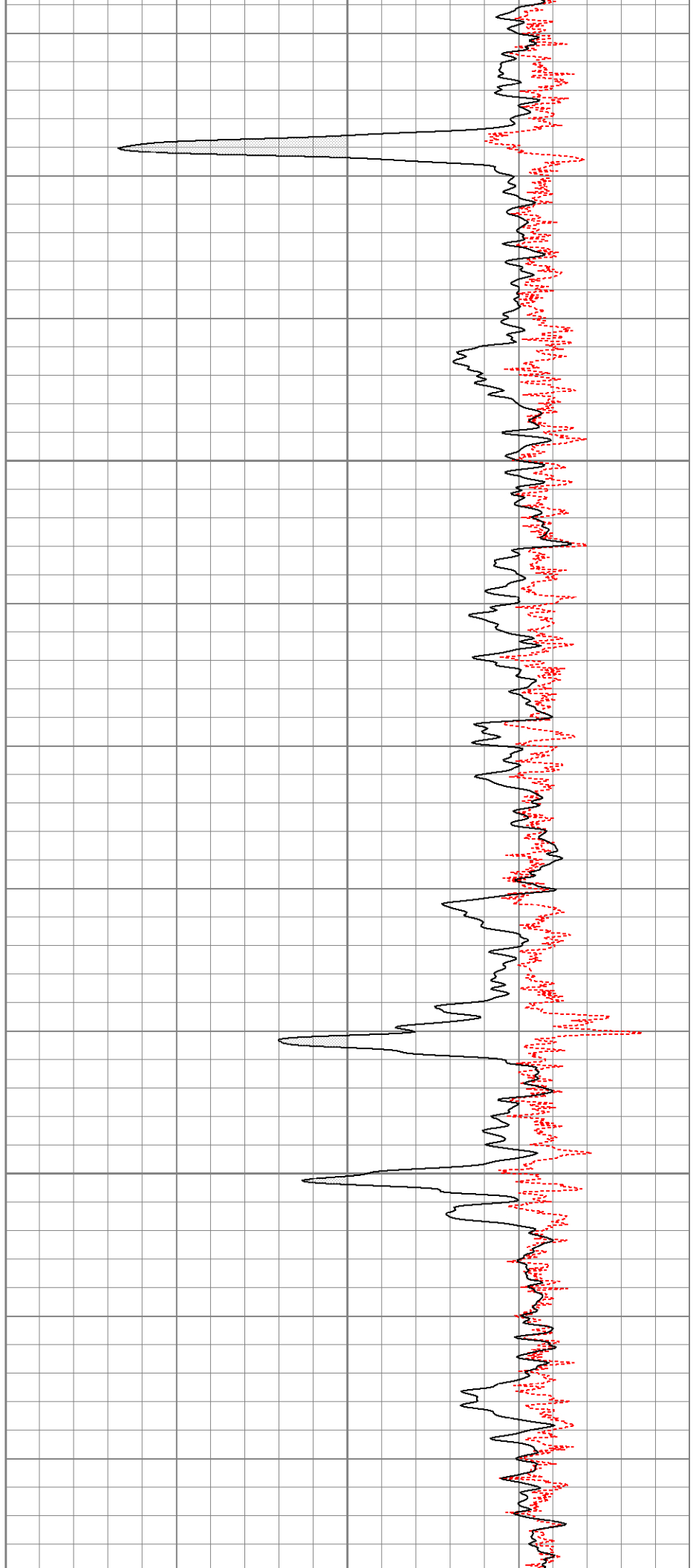
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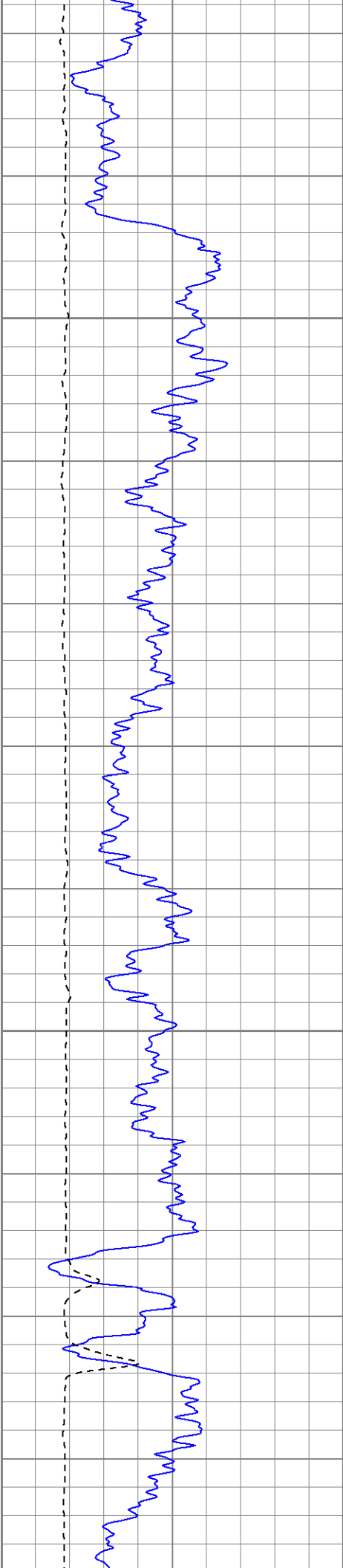




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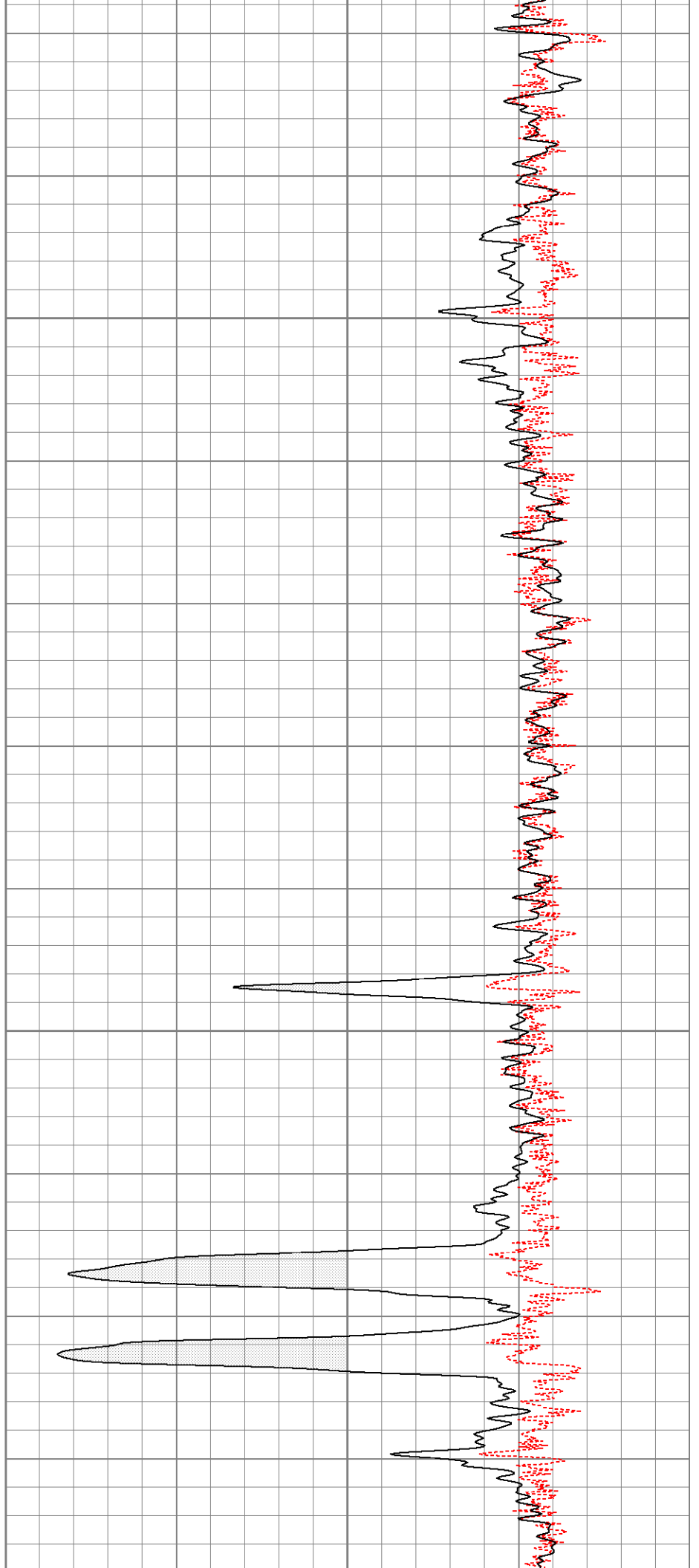
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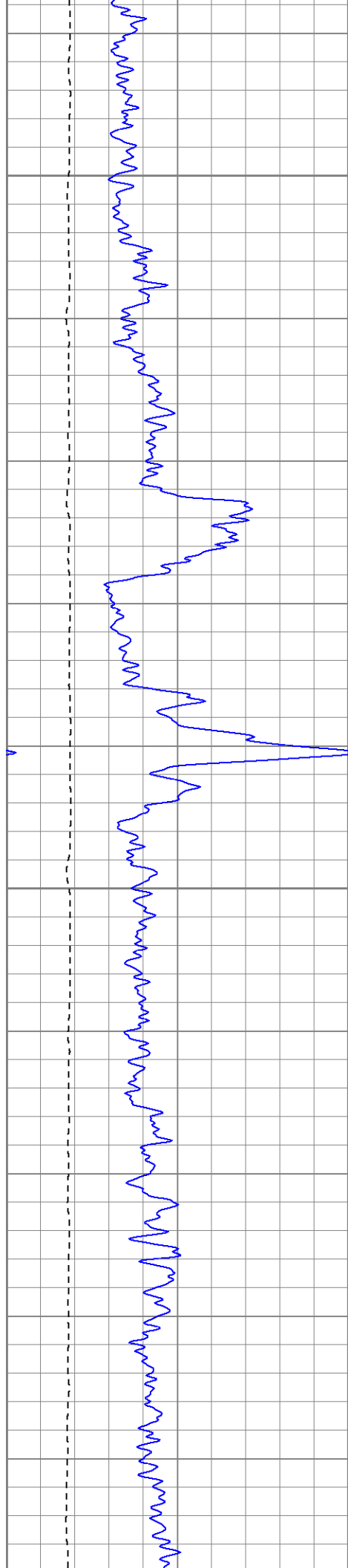




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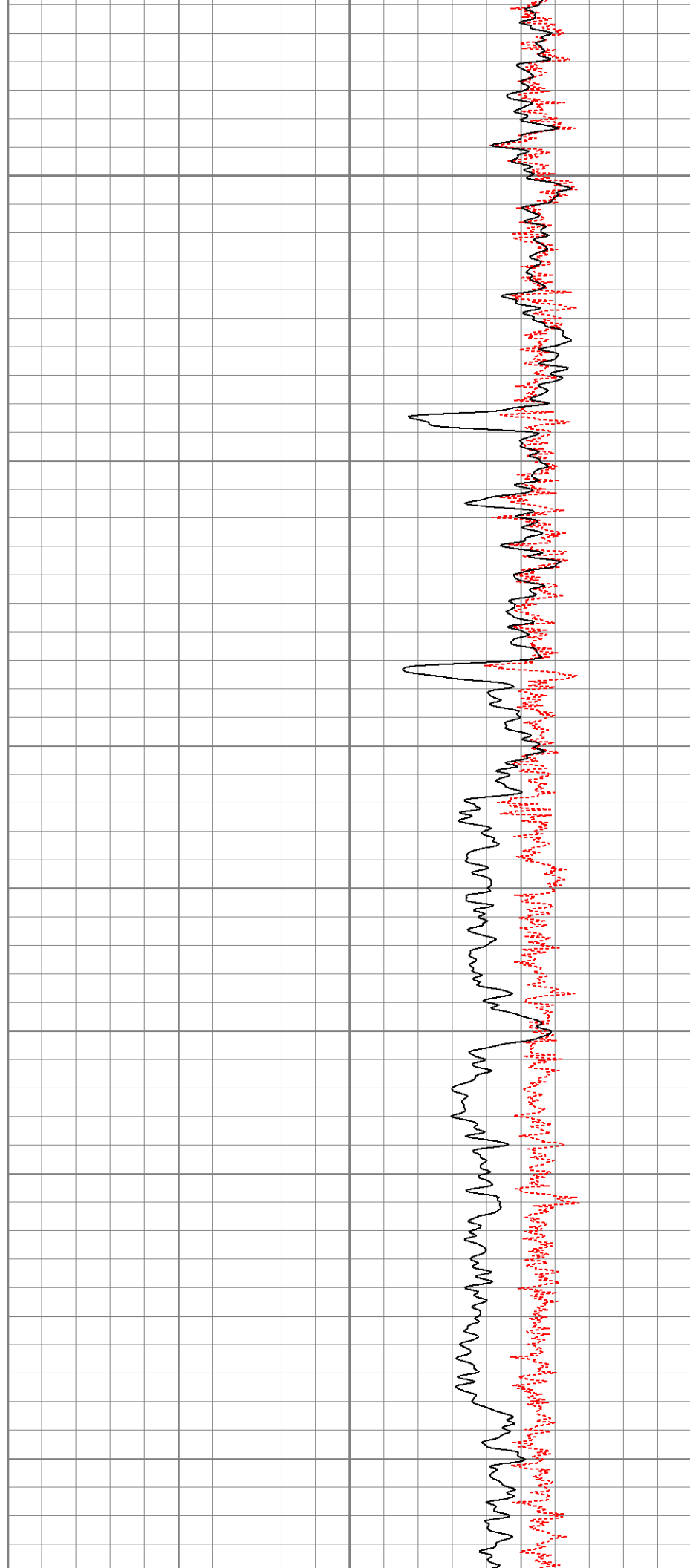
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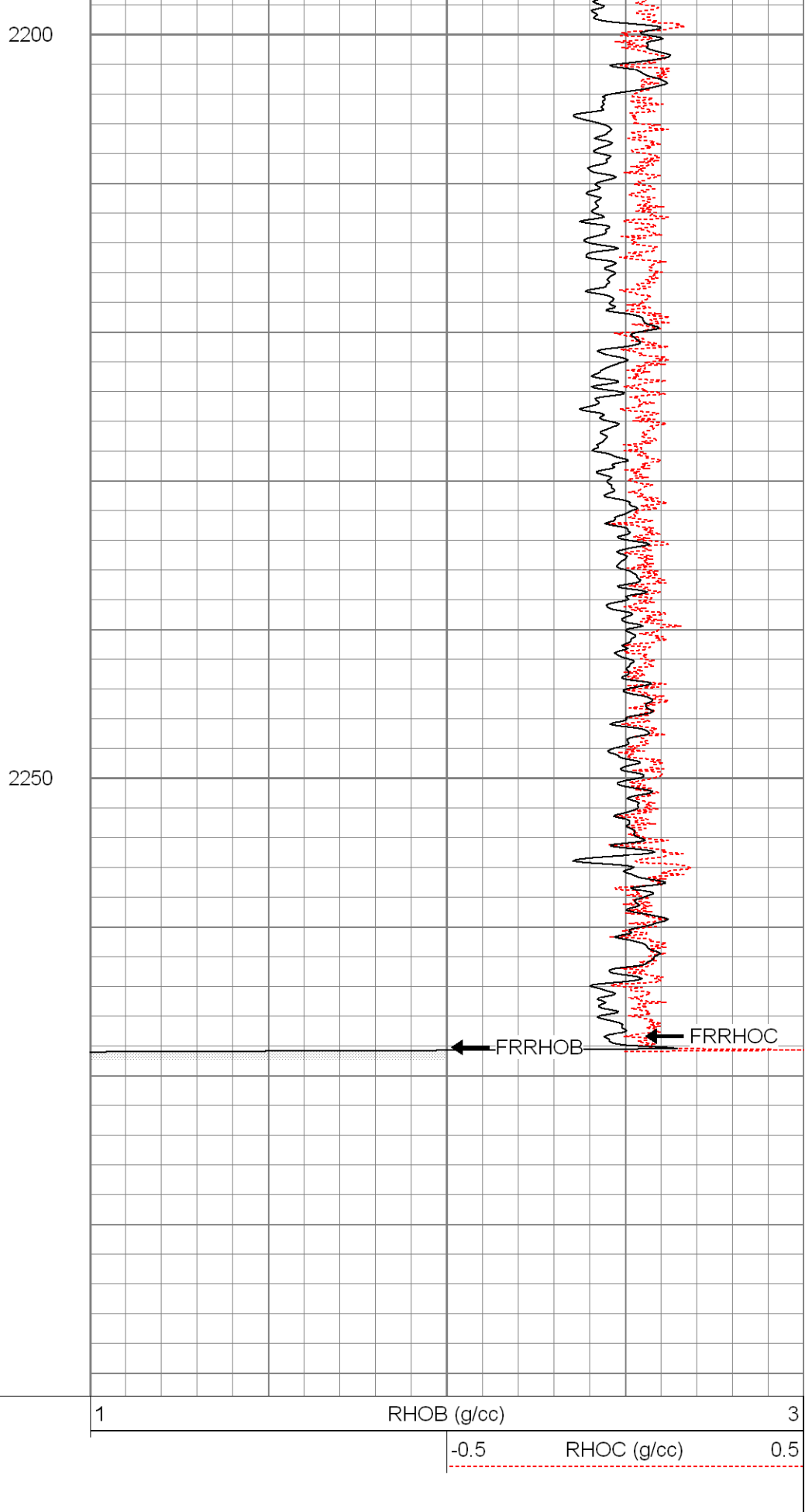
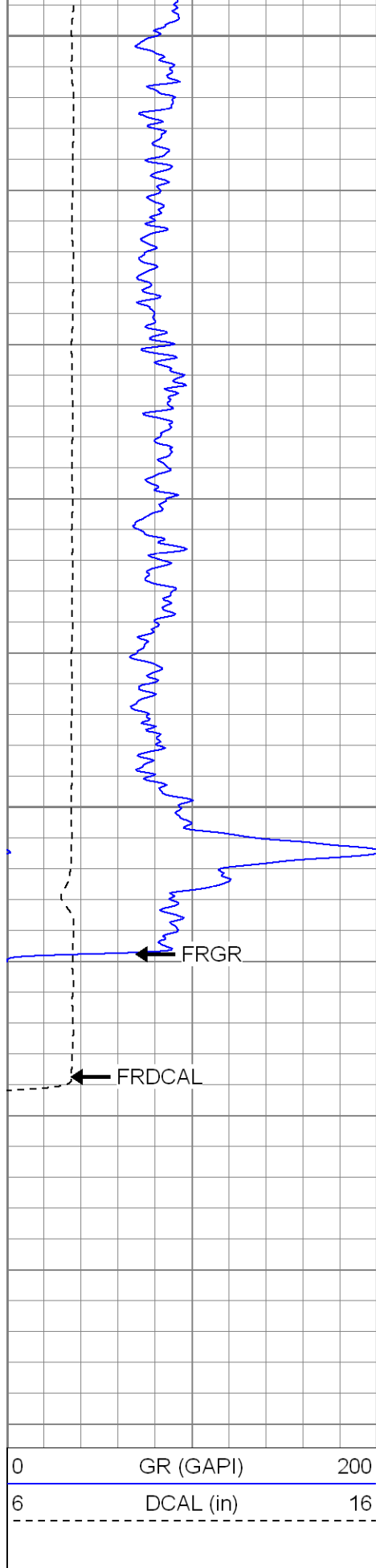




2100

2150





Calibration Report

Database File: xtohre2309.db
Dataset Pathname: pass1

Dataset Creation:	Tue Apr 08 08:31:21 2008 by Log Open-Cased 070814
Dual Induction Calibration Report	
Serial-Model:	5375-G
Surface Cal Performed:	Tue Apr 01 11:00:37 2008
Downhole Cal Performed:	Tue Apr 01 11:01:24 2008

Surface Calibration								
Readings			References			Results		
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.237	-0.611
Medium	0.003	0.742	V	0.000	550.000	mmho-m	743.848	-2.179
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.141	-0.502
Medium	0.003	0.742	V	0.000	550.000	mmho-m	743.959	-2.189

Downhole Calibration								
Readings			References			Results		
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.493	500.241	mmho-m	-0.108	499.951	mmho-m	0.999	0.384
Medium	0.182	550.341	mmho-m	0.009	549.927	mmho-m	1.000	-0.172
Shallow	2.506	0.008	V	500.000	2.000	Ohm-m	124.000	-3.000

Temperature Calibration Report					
Serial Number:	2542T				
Tool Model:	CDLP				
Performed:	Thu Jan 10 11:25:25 2008				
	Reference		Reading		
Low Reference:	55.00	degF	3.11	V	
High Reference:	160.00	degF	5.35	V	
Gain:	46.88				
Offset:	-90.78				
Delta Spacing	1				

Compensated Density Calibration Report								
Serial-Model:	2542-T2							
Source / Verifier:	/							
Master Calibration Performed:	Fri Apr 04 08:43:29 2008							

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	725.64	339.44	cps
Aluminum	2.590	g/cc	162.65	232.88	cps
Spine Angle = 75.86			Density/Spine Ratio = 0.571		
	Size		Reading		
Small Ring	8.00	in	1.33	V	
Large Ring	14.00	in	2.67	V	

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Fri Apr 04 09:53:13 2008

 Calibrator Value: 1.0 GAPI

 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

 Sensitivity: 0.2500 GAPI/cps

Neutron Calibration Report

Serial Number: 5108
 Tool Model: PROBE
 Performed: Fri Dec 01 08:04:46 2006

 Calibrator Value: 1 NAPI

 Calibrator Reading: 1 cps

 Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	38.42		None	0.75	1.50	5.00
			NEU-PROBE (5108) Probe Epithermal	4.92	3.63	85.00
GR	31.90		GR-OH (2001) 2001	3.56	3.25	40.00
			CDL-T2 (2542) Gearhart	9.25	4.00	201.00
LSD	24.31		TEMP-CDLP (2542T) Probe Density/Temp	0.01	10.00	1.00
DCAL	23.98					
SSD	23.73					
TEMP	22.55					
			DIL-G (5375) Gearhart	21.47	4.00	345.00
CILD SP	10.60 10.60					
CILM	6.89					
RLL3	1.70					

Dataset:			xtohre2309.db: field/well/run1/pass1			
Total Length:			39.96 ft			
Total Weight:			677.00 lb			
O.D.			10.00 in			